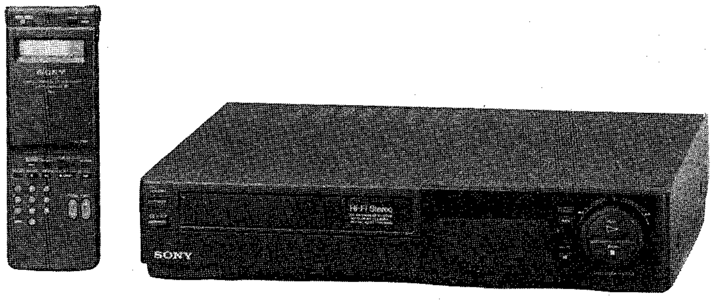
# SLV-325/CP/EI/UB/VP
## RMT-V117/V118A

# SERVICE MANUAL

*AEP Model*
*SL V-325*
*UK Model*
*SL V-325UB*
*Germany Model*
*SL V-325VP*
*Spanish Model*
*SL V-325CP*
*Irish Model*
*SL V-325EI*



- Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT II for MECHANICAL ADJUSTMENTS. (9-972-816-11)

VHS Hi-Fi

## SPECIFICATIONS

**System**

| | |
|---|---|
| Channel coverage | SLV-325/325VP |
| | VHF channels E2 - E12<br>(A to H only for Italy) |
| | CATV channels S01 - S03 |
| | CATV channels S1 - S20 |
| | HYPER S21 - S41 |
| | UHF channels E21 - E69 |
| | SLV-325UB |
| | UHF channels B21 - B68 |
| | SLV-325EI |
| | VHF channels A - J |
| | CATV channels S01 - S03 |
| | CATV channels S1 - S20 |
| | HYPER S21 - S41 |
| | UHF channels E21 - E69 |
| | SLV-325CP |
| | VHF channels E2 - E12 |
| | CATV channels S01 - S03 |
| | CATV channels S1 - S20 |
| | HYPER S21 - S41 |
| | UHF channels E21 - E69 |

**Inputs and outputs**

| | |
|---|---|
| Video inputs | EURO-AV: 21-pin (pin 20) |
| Video outputs | EURO-AV: 21-pin (pin 19) |
| Audio inputs | EURO-AV: 21-pin (pins 2 and 6) |
| Audio outputs | EURO-AV: 21-pin (pins 1 and 3) |

**General**

| | |
|---|---|
| Power requirements | 240 V AC, 50 Hz (SLV-325UB)<br>220 V - 230 V AC, 50 Hz<br>(SLV-325/325VP/325EI/325CP) |
| Power consumption | 25 W |
| Operating temperature | 5°C to 40°C (41°F to 104°F) |
| Storage temperature | –20°C to 60°C (–4°F to 140°F) |
| Dimensions | 430 ¥ 86 ¥ 356 mm (w/h/d)<br>(17 ¥ $3\,{}^{1}/_{2}$ ¥ 14 ${}^{1}/_{8}$ inches)<br>(including projection parts and controls) |
| Weight | 5.7 kg (12 lb 9 oz) |

**Accessories supplied**

Wireless Remote Commander RMT-V117 or
(RMT-V118A for the SLV-325CP) with two R6 batteries (1)
75-ohm coaxial cable (1)
Plastic adjuster
AC power cord (1)

Design and specifications are subject to change without notice.

**Note**

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Remote commander is available as a unit. But as individual parts the battery case lid of commander is only avaiable.

MICROFILM

# VIDEO CASSETTE RECORDER

SONY®

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!**

**LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

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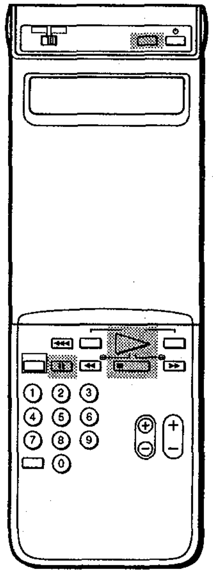
# SECTION 1
# GENERAL

This section is extracted from instruction manual.

# Basic Operations

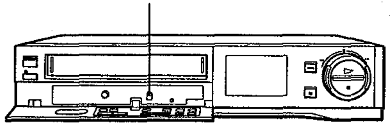


## Playing a Video Tape

When you want to play a video tape, just slide the tape into the tape compartment until the VCR grips the tape. The power will go on automatically and the VCR will start playing the tape immediately.

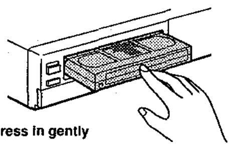
1 Turn on the TV.

2 **SLV-325VP models only:** Open the drop-down panel and set the COLOUR SYSTEM switch on the VCR to one of the settings below depending on the type of video tape you want to play:



| To Play | Set to |
|---|---|
| PAL video tapes | **PAL** |
| MESECAM video tapes | **MESECAM** |

3 Insert the video tape.
The VCR goes on automatically.

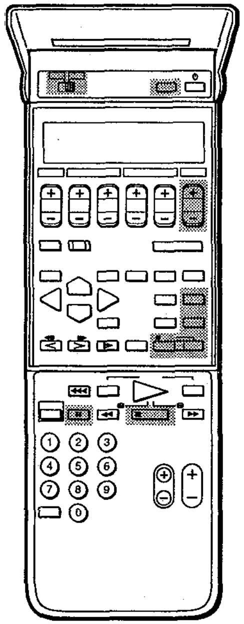


4 Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

5 Press ▶ PLAY.
When the tape reaches the end, it automatically rewinds.

| To | Press |
|---|---|
| Stop the tape | **■ STOP** |
| Interrupt play | **II PAUSE** (Press PAUSE again to resume play.) |
| Eject the tape | **EJECT** button on the VCR deck. |

**If the time/tape counter display appears on the TV screen,** press DATA SCREEN on the remote control to remove it. The information on the time/tape counter tells you how much tape is left on the spool and the amount of time the tape has been playing.



You can record TV programmes in one of three ways:
- While you are watching the programme
- While you are watching another programme
- While you are not watching the TV at all (Timer Recording)

## Recording While Watching the TV Programme

While recording a TV programme, you may want to record the whole programme or you may want to delete certain scenes.

1 Insert a video tape. (Its safety tab must be in place.)

2 Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

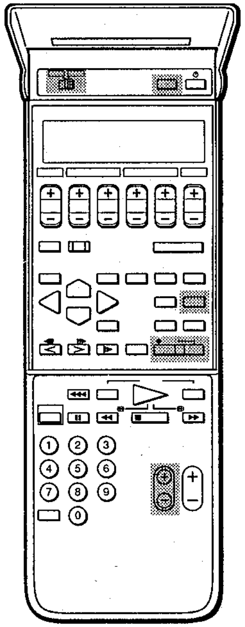
3 Press INPUT SELECT several times so that "TUNER" (TV) is displayed in the VCR front panel.

4 To operate the TV using the remote control, slide the TV-VTR selector (at the top of the remote control) to TV.

5 Press the plus (+) or minus (–) side of the PROG +/– button to select the channel you want to record and adjust the volume with VOL +/–.

6 Press ● REC while pressing the button to the right of it.
Recording starts. The tape will automatically rewind when it reaches the end.

| To | Press |
|---|---|
| Turn off the data screen | **DATA SCREEN**<br>(If left on-screen, the data will not record on the tape.) |
| Delete a scene you don't want recorded | **PAUSE** while the unwanted scene is being broadcast. Press PAUSE again to resume recording. |
| Stop recording | **STOP** |
| Have the VCR stop after recording | **QUICK TIMER** (on the VCR deck) while recording; press until the amount of time you want to record is displayed. |



## Recording While Watching Another Programme

The recording procedure differs depending on the type of TV-VCR connection you have made.

1 Turn on the TV.

2 Insert a video tape. (Its safety tab must be in place.)

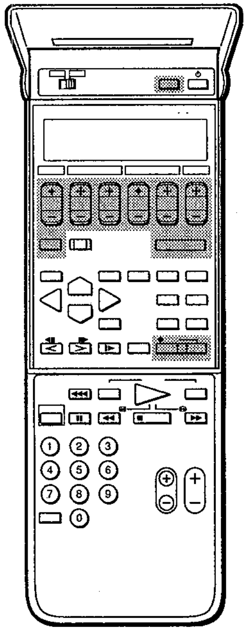
3 Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

4 Press INPUT SELECT several times so that "TUNER" is displayed in the VCR front panel.

5 To operate the TV using the remote control, slide the TV-VTR selector on the remote control to TV.

6 Do one of the following depending on the type of connection your VCR has:

| ***If*** the VCR has a EURO-AV connection: | ***If*** the VCR has an aerial connection only: |
|---|---|
| 1 Press the plus (+) or minus (–) side of the PROG +/– button to select the channel you want to record. | 1 Press the plus (+) or minus (–) side of the PROG +/– button to select the channel you want to record. |
| 2 Press ● REC while pressing the button to the right of it.<br>Recording starts. | 2 Press ● REC while pressing the button to the right of it.<br>Recording starts. |
| 3 Press the TV/VTR button until "VTR" disappears from the front panel display on the VCR. | 3 Press PROG +/– to select the TV channel you want to watch and adjust the volume with VOL +/–. |
| 4 Press PROG +/– to select the TV channel you want to watch and adjust the volume with VOL +/–. | |



**If several short beeps sound when you press TRANSMIT** the timer settings have not registered in the VCR. Press TRANSMIT again; otherwise, make sure that:

- a cassette with its safety tab is inserted
- the end of the tape has not been reached
- the VCR is not in play mode
- eight timer settings have not already been made

**To stop timer recording, press TIMER REC ON/OFF.**

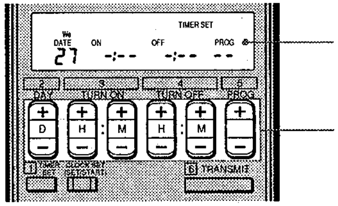
## Recording TV Programmes Using the Timer

You can use the timer on the VCR to automatically record TV programmes while you are out. For example, you might want to record a broadcast that is on Monday to Friday from 18:00 to 19:00, and another programme that is shown every Sunday at 8:00. You can set the VCR to record up to eight TV programmes within a month.

1 Before turning on the VCR, check that the clocks on the remote control and front panel show the correct time (if not, see "Setting the Clock" in ***Getting Started***).

2 Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

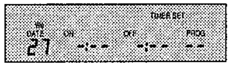
3 Make sure the safety tab on the video tape is in place and insert the tape.



**LCD Read-Out Display**

**Timer Setting Buttons**
Use the remote control to set the timer. You don't have to be near the VCR to set the timer. Once you've made your settings on the remote control, aim at the VCR and press TRANSMIT to register the settings with the VCR deck.

4 Press TIMER SET.
"TIMER SET" appears in the LCD read-out display at the top of the remote control.



5 Choose one of the following options:

**To Record on a Single Date**
1 Press **D** (day) until the day you want to start recording appears in the LCD read-out.
2 Continue at **step 6** below.

**To Record on Multiple Dates**
1 Press **D** (day) until today's date appears in the LCD read-out.
2 Press the – (minus) side of the **D** button to select one of the following:

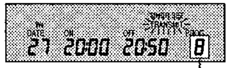
Sunday-Saturday
Monday-Saturday
Monday-Friday
Every Monday
Every Tuesday

***or***

Every Wednesday
Every Thursday
Every Friday
Every Saturday
Every Sunday

6 Press **H** (hour) and **M** (minute) in the TURN ON section to set when recording is to start, and **H** and **M** in the TURN OFF section to set when recording is to end.

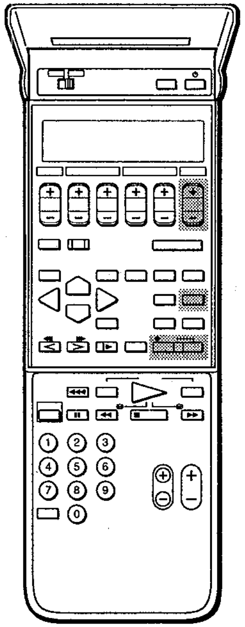
7 Press PROG +/– to select the TV channel to be recorded.
"TRANSMIT" flashes in the LCD read-out.



Programme position

8 Point the remote control at the remote sensor on the VCR and press TRANSMIT.
With a long beep, the VCR activates recording standby and displays the Program List on the TV screen for a few seconds.

9 Press TIMER SET.
The current time appears in the front panel display, and the VCR stands by to go on automatically at the first timer setting.



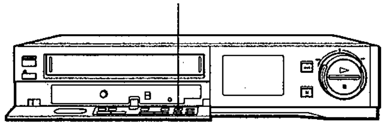
## Using the Quick Timer for Recording

The Quick Timer lets you set the VCR for recording faster than the regular timer because you set the time in 30-minute units. However, unlike timer recording, quick timer recording doesn't begin automatically—you must be there to start the timer. Once you've started it, you can leave the VCR to record for the time you've set.

1 Press INPUT SELECT to light "TUNER" in the front panel display.

2 Open the drop-down panel on the VCR and press QUICK TIMER.
"TIMER" lights up and "0:00" appears in the front panel display.

QUICK TIMER button



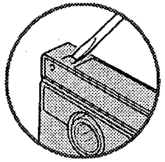
3 Press PROG +/– to select the channel to be recorded.

4 Press QUICK TIMER again. Press QUICK TIMER until the amount of time you want to record is displayed.
Thirty minutes is added to the recording time each time you press QUICK TIMER. When recording begins, "TIMER REC" appears in the front panel of the VCR. When the time you set has counted down to "0:00", recording stops.

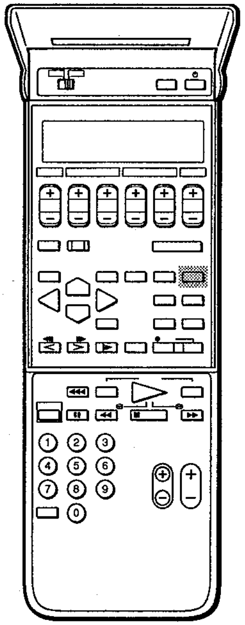
***To watch another programme during quick timer recording***
Follow the procedure for "Recording While Watching Another Programme" on page 6. Start at **step 3**.
***To stop quick timer recording***
Press TIMER REC ON/OFF.

## Saving a Recording

To keep from erasing your recorded tape, break off the safety tab on the cassette. If you later want to use the same video cassette to record, cover the slot with adhesive tape.



Cassette Casing



## Using the VCR Before Timer Recording Begins

1 Press the TIMER REC ON/OFF button so the red indicator, "TIMER ", disappears from the front panel display of the VCR.

2 When you finish using the VCR, press the TIMER REC ON/OFF button so that "TIMER " again appears in the front panel display.
The VCR will be ready to start recording at the time you have set.

### VPS Recording (German Models)

The German broadcasting system transmits VPS (Video Programme System) signals with all its TV programmes. These signals assure your timer recordings are made regardless of broadcast delays, early starts, or broadcast interruptions. For example, if an urgent news bulletin interrupts a regular programme, recording will stop. As soon as the interrupted programme resumes, recording starts again.

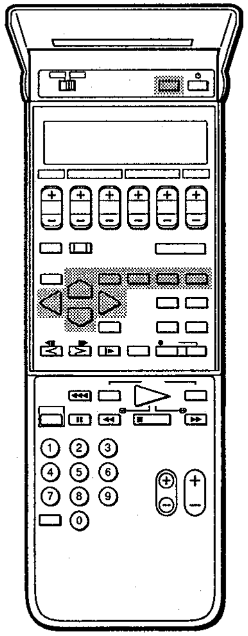
1 Make sure the "TIMER " indicator is not lit in the front panel display.

2 Before setting the timer to record, press VPS ON/OFF so that the "VPS" indicator lights in the front panel display.

3 Set the timer according to the instructions under "Recording TV Programmes Using the Timer" (page 7).
The VCR will be standing by for VPS recording well before the turn-on time so as to be ready if there is a change in the start time.

*Notes on VPS Recording*

- If recording times overlap due to a VPS time shift, the programme that was broadcast first has priority. The second programme will begin to record only when the first programme has finished.
- The VPS button is effective only when TIMER REC does not light up in the display window.
- If the VCR cannot receive a VPS signal because the signal is too weak or because the station failed to transmit VPS signals, the VCR will record the programme without the VPS function regardless of the VPS indication in the front panel display.



## Checking or Changing Timer Settings

You can check, erase, change, or add TV programmes to be recorded. First, look at the Program List to check which programmes are set up for timer recording.

1 Press TIMER REC ON/OFF.
The red "TIMER" indicator in the front panel disappears.

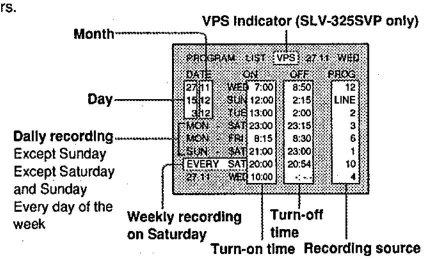
2 Turn on the TV and VCR.

3 Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

4 Press TIMER ON SCREEN.
The Program List appears.

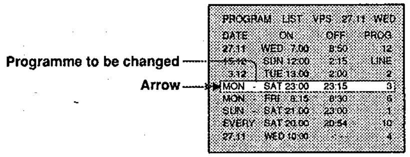
5 Press TIMER REC CHECK.
The arrow "▶" appears beside a listing.

***Programme List on Your TV Screen***



PROGRAM LIST VPS 27.11 WED

| DATE | ON | | OFF | PROG |
|---|---|---|---|---|
| 27.11 | WED | 7:00 | 8:50 | 12 |
| 15.12 | SUN | 12:00 | 2:15 | LINE |
| 3.12 | TUE | 13:00 | 2:00 | 2 |
| MON - | SAT | 23:00 | 23:15 | 3 |
| MON - | FRI | 8:15 | 8:30 | 6 |
| SUN - | SAT | 21:00 | 23:00 | 1 |
| EVERY | SAT | 20:00 | 20:54 | 10 |
| 27.11 | WED | 10:00 | -:-- | 4 |



PROGRAM LIST VPS 27.11 WED

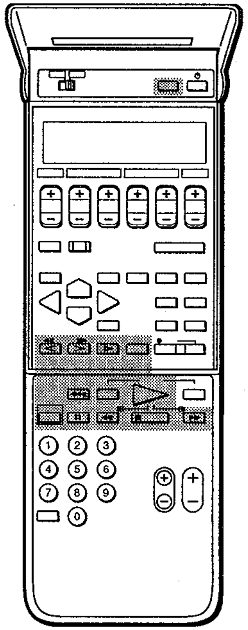
| DATE | ON | | OFF | PROG |
|---|---|---|---|---|
| 27.11 | WED | 7:00 | 8:50 | 12 |
| 15.12 | SUN | 12:00 | 2:15 | LINE |
| 3.12 | TUE | 13:00 | 2:00 | 2 |
| ▶MON - | SAT | 23:00 | 23:15 | 3 |
| MON - | FRI | 8:15 | 8:30 | 6 |
| SUN - | SAT | 21:00 | 23:00 | 1 |
| EVERY | SAT | 20:00 | 20:54 | 10 |
| 27.11 | WED | 10:00 | -:-- | 4 |

6 Use the CURSOR keys to move the arrow to the setting you want to change or erase.

7 To erase the setting, press TIMER REC CLEAR.
To change the setting, simply re-enter the items you want changed using the remote control while referring to **steps 3** through **8** in "Recording TV Programme Using the Timer" on page 7.

8 If there are other timer settings still on the list, press TIMER REC ON/OFF to re-activate the timer.
"TIMER" will light in the VCR front panel display.

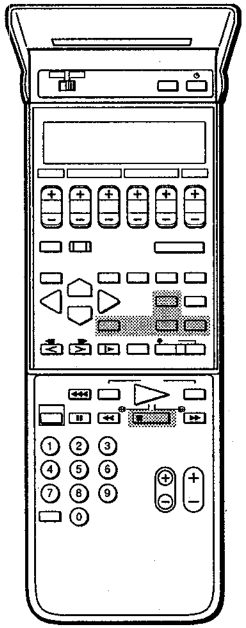
# Advanced Operations



## Replaying, Searching, and Variable Speed Play

To resume normal playback for any of these functions, press PLAY.
Also note that while you're rewinding the tape, you can watch TV by pressing the TV/VTR button or turning to the video playback channel.

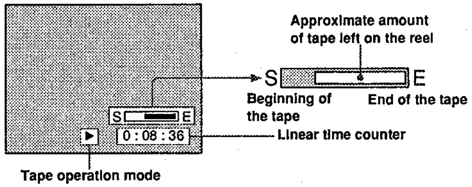
| Speed | Description | Rewind | Forward |
|---|---|---|---|
| **Replay** | The VCR replays in slow-motion the last two seconds of the scene just played. | Press **REPLAY** | not available |
| **Slow** | The tape rewinds or advances at slower-than-normal speed and you can see what's on the tape. | Press **SLOW** and **◀II FRAME** | Press **SLOW** |
| **2X Normal** | The tape rewinds or advances at two times normal speed, and you can see what's on the tape. | Press **X2** and **◀II FRAME** | Press **X2** |
| **Fast** | The tape rewinds or advances rapidly, and you can see what's on the tape. | Press **SEARCH** or press and hold **◀◀ REW** | Press **SEARCH** or press and hold **▶▶ FF** |
| **Very Fast** | The tape rewinds at a very high speed, but you cannot see what's on the tape. | Press **◀◀◀ HI-SPEED REWIND** | not available |
| **Frame-by-Frame** | A scene plays one frame at a time. | Press **PAUSE**, then press **◀II FRAME** | Press **PAUSE**, then press **II▶ FRAME** |
| **Variable Speed** | A scene plays at varying speeds. | Press **▶ PLAY**, then turn the **DUAL MODE SHUTTLE** to the left. | Press **▶ PLAY**, then turn the **DUAL MODE SHUTTLE** to the right. |



## Using the Time and Tape Counters

The time/tape-counter display may appear on your TV screen when you first turn on the VCR. The tape counter screen display tells you the approximate amount of tape left. The time counter screen display tells you how much time the tape has been recording or playing. Note that the time-counter only counts those sections of the tape where something has been recorded and cannot be reset to zero as can the tape counter (below).

***The Data Screen with Tape Counter Display***



### *Displaying the Time/Tape-Counter*

Press DATA SCREEN on the remote control.
The time/tape-counter display appears on screen. If it is already on screen, it disappears.

### *Using the Tape Counter*

Unlike the screen tape counter, the front panel tape counter lets you reset to zero. Use it when you want to find a certain place on the tape, such as when you finish recording.

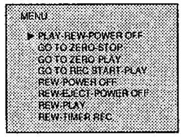
**1** Press CLOCK/COUNTER to display the tape counter.

**2** Press COUNTER RESET on the remote control at the location on the tape you want to find later.
The tape counter in the VCR display resets to "0H 00M 00S".

**3** Press ■ STOP when you've finished recording or playing.

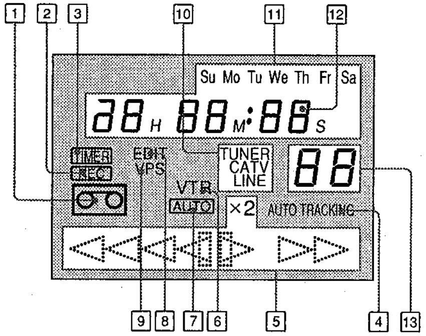
**4** Choose either the GO TO ZERO-PLAY or GO TO ZERO-STOP option from the Auto Menu. (For how to display the Auto Menu, see "Setting the VCR to Do Multiple Functions" on page 17.)

**5** Press EXECUTE.
The tape advances or rewinds to the zero point and either plays or stops, depending on the option you've chosen.

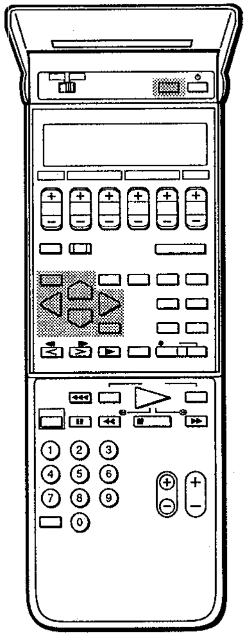


**The AUTO MENU**

## Reading the Front Panel Display


1
2
3
10
11
12
Su Mo Tu We Th Fr Sa
88 H 88 M:88 S
TIMER
REC
EDIT
VPS
VTR
AUTO
TUNER
CATV
LINE
88
×2
AUTO TRACKING
9
8
7
6
5
4
13

| Indicator | Lights When |
|---|---|
| 1 Tape indicator | a tape is in the VCR |
| 2 REC | a tape is recording |
| 3 TIMER | VCR is waiting to timer record |
| 4 AUTO TRACKING | VCR has found the best tracking condition; flashes when the VCR is searching for the best tracking |
| 5 Tape Transport indicators | VCR is rewinding, fast-forwarding, playing, pausing, high speed rewinding, etc. |
| 6 VTR | VCR is ready to play a video tape |
| 7 AUTO | VCR has been preset to do an automatic function |
| 8 EDIT | VCR is ready to edit onto another tape |
| 9 VPS | VPS button is pressed (SLV-325VP models only) |
| | **Shows** |
| 10 LINE/TUNER | which input source you have chosen—TUNER, CATV (cable television), or LINE (another VCR, etc.) |
| 11 Tape counter | how long a tape has been playing or recording |
| 12 Clock | current time |
| 13 Programme Position | programme number the VCR is tuned to when TUNER is lit (this is the programme number you assigned the channel to in *Getting Started*) |



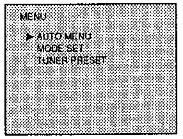
## Understanding the On-Screen Menus

The SLV-325 VCR provides you with easy-to-use on-screen menus. These menus are lists of optional procedures or choices for performing advanced functions. Make menu choices using the CURSOR keys on the remote control.

**1** Turn on the TV and VCR.

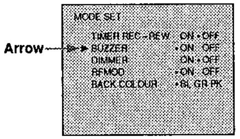
**2** Press the TV/VTR button (on the remote control) several times until "VTR" appears in the front panel display. (If your VCR has an aerial connection instead of a EURO-AV connection, turn to the video channel you set the VCR to in "Tuning the VCR to Your TV" in **Getting Started**.)

**3** Press MENU.
The MENU appears on the TV screen.


MENU
▶ AUTO MENU
MODE SET
TUNER PRESET

**The MENU**

**4** Move the arrow to the menu option you would like to see on screen. (See "Menu options" below for descriptions of the choices.)


Arrow
MODE SET
TIMER REC→REW ON •OFF
▶ BUZZER •ON OFF
DIMMER ON •OFF
RFMOD •ON OFF
BACK COLOUR •BL GR PK

**The MODE SET Menu**

**5** Press EXECUTE once you have selected your option.
The menu selected appears on-screen.

**6** Press EXECUTE again when you finish.
The screen you were watching before you started selecting menus reappears.

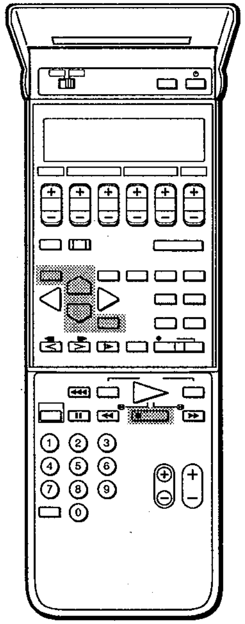
## *Menu Options*

Use the Up/Down or Left/Right CURSOR keys to choose menu options.

| AUTO | MODE SET | TUNER PRESET |
|---|---|---|
| Use the **AUTO MENU** to have the VCR do a sequence of tape transport functions automatically.<br>(See "Setting the VCR to Do Multiple Functions", p. 17) | • Choose **TIMER REC-REW** to automatically rewind the tape after timer recording.<br>• Choose **BUZZER** to turn on or off the warning beep that is given when you press invalid keys, the VCR enters certain modes, or when programmed information has properly registered in the VCR.<br>• Choose **DIMMER** to increase or decrease the brightness of indications in the front panel display.<br>• Choose **RF MOD, OFF** if you have made a EURO-AV connection and if the TV picture shows interference.*<br>• Choose **BACK COLOUR** to change the background colour of the TV data screen. The choices are: BL (blue-factory setting), GR (green), or PK (pink). | • Choose **NORMAL/CATV**** and **CHANNEL SET** to put channel numbers into the VCR's memory.<br>(See "Tuning the TV to the Required Stations", in ***Getting Started***.<br>• Choose **AFT** and **FINE-TUNING** to fine-tune the VCR picture. (See "Fine-Tuning the Picture," p. 18) |

* *CAUTION: Do not switch off the RF MOD if you don't have a EURO-AV connection; otherwise, there will be no playback picture.*

** *On all except SLV-325UB models*

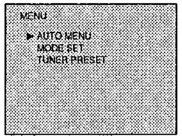


# Setting the VCR to Do Multiple Functions

You can preset the VCR to do a series of tape transport functions automatically. This is convenient if you don't have time to attend to the VCR.

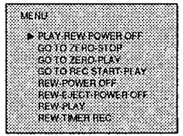
1 Press ■ STOP on the remote control.

2 Press MENU while the VCR is in stop mode.
The MENU is displayed on screen.
If the VCR is not in stop mode, a short beep sounds.



**The MENU**

3 Press EXECUTE.
The Auto MENU appears.



**The Auto MENU**

4 Use the Up/Down CURSOR keys, to choose one of the following options:

**PLAY-REW-POWER OFF**
The tape plays, rewinds and the VCR shuts off.

**GO TO ZERO-STOP**
The tape advances or rewinds to the "0" point on tape counter and stops. (Use this option when you've set the tape counter to "0 " to mark a certain place on the tape. See "Using the Tape Counter" on page 13.)

**GO TO ZERO-PLAY**
The tape advances or rewinds to the "0" point on the tape counter, and starts playing from that point. (See "Using the Tape Counter" on page 13.)

**GO TO REC- START-PLAY**
The tape advances or rewinds to the beginning of a recorded programme and plays back from that point.

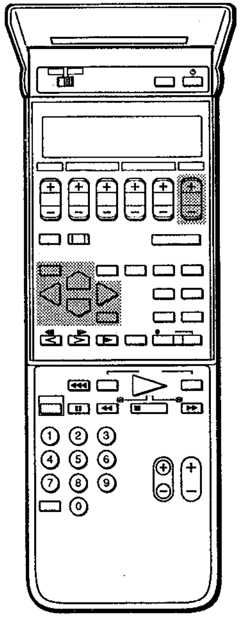
**REW-POWER OFF**
The tape rewinds to the beginning and the VCR shuts off.

**REW-EJECT-POWER OFF**
The tape rewinds, the cassette ejects, and the VCR shuts off.

**REW-PLAY**
The tape rewinds to the beginning and plays.

**REW-TIMER REC**
The tape rewinds and then the VCR begins recording at the date and time you set with the timer.

5 Press EXECUTE.
The selected operation begins, and "AUTO" lights up in the front panel display.

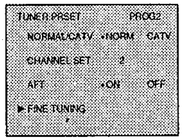


# Fine-Tuning the Picture

If after using the TV controls, you cannot get a clear TV picture, use AFT (Automatic Fine-Tuning) or manual fine-tuning to adjust the picture. While AFT is faster, manual fine-tuning gives you greater control.

**1** Press PROG +/– to tune in the weak channel.

**2** Display the TUNER PRESET menu on the TV screen. (See "Understanding the On-Screen Menus" on page 15.)

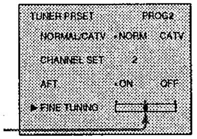


The TUNER PRESET Menu

**3** Choose Automatic Fine-Tuning or Manual Fine-Tuning.

**To Automatic Fine-Tune**
Use an Up/Down CURSOR key to move the arrow to AFT; then use a Left/Right CURSOR key to move the dot to "ON".

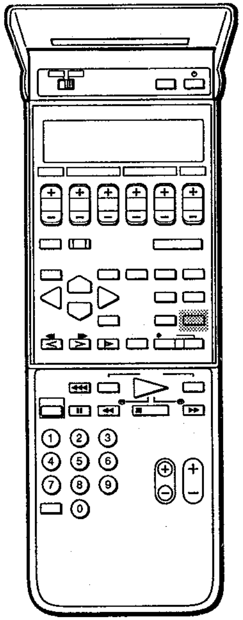
**To Manual Fine-Tune**
Move the arrow to "FINE-TUNING". Press a Left/Right CURSOR key until you get the best picture.



**4** Press EXECUTE to store the correct tuning for that channel.

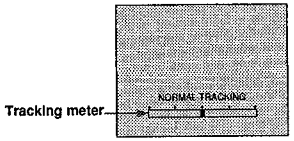
**If the TV picture is still poor, and if you've made your TV-VCR connection via the EURO-AV socket,** display the Mode Set menu, and choose OFF at the RF MOD (RF Modulator) option.

If the TV signal is too strong, that is, the broadcast shows on adjacent channels, with a screwdriver, set the LOCAL/DX switch, at the rear of the VCR, to LOCAL. Normally this switch is set to DX.



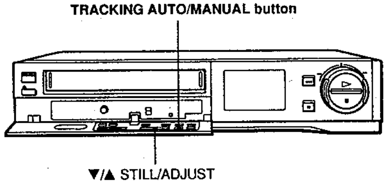
# Removing Picture Distortion

Usually, the tracking control function removes picture distortion automatically. However, occasionally, streaks or "snow" may appear on the screen when you play a video tape. When this happens, you can adjust the tracking control yourself either automatically or manually. While automatic is faster, manual adjustment offers greater control.



The Tracking Meter Display

## *Automatic Tracking Adjustment*



On the inside of the drop-down panel of the VCR, press AUTO/MANUAL so "AUTO TRACKING" lights in the front panel display.

"AUTO TRACKING" flashes while the VCR is searching for the best tracking condition and lights steadily when it finds the best possible tracking. If it cannot find the best tracking condition, this may mean that the tape was recorded under poor conditions. If that is the case, the picture cannot be improved.

## *Manual Tracking Adjustment*

**1** Press DATA SCREEN to display the tape counter on screen.

**2** Press AUTO/MANUAL (on the inside of the VCR's drop-down panel) so that "AUTO TRACKING" disappears from the front panel display.

**3** Press ▼/▲ on the TRACKING NORMAL/SLOW and STILL/ADJUST buttons to get the best picture.
The tracking meter appears on screen. The distortion should disappear as you press one of the two buttons.

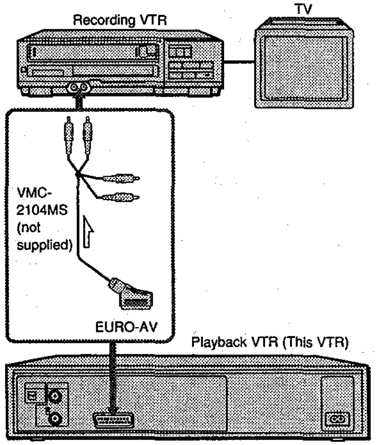
If you cannot get a better picture, simultaneously press ▼/▲ on the TRACKING NORMAL/SLOW and STILL/ADJUST buttons. This returns the tracking meter to its normal position.

## Editing Video Tapes With Another VCR

**This is just a sample connection.**
If your VCR has different sockets than the ones referred to in this connecting procedure, consult your local Sony dealer or local Sony service facility for how to make the best connection.

To record video tapes from one VCR to another, connect the VCRs using a 4-plug, EURO-AV type connector (Sony VMC-2104 MS: not supplied). The SLV-325 (this VCR) will function as the playback VCR and the other VCR as the recording VCR.

### *Connecting the Two VCRs*



**What are "Line 1 and 2" ?**
If the other VCR has sockets at the front and rear for connections to other equipment, one socket is labelled "Line 1" (usually the rear one) and the other "Line 2". Whichever one you have connected the Sony SLV-325 VCR to, that is the line number you should choose on the other machine. Otherwise, just select "LINE".

1 Connect the other (recording) VCR to the TV. (Refer to the manual of the other VCR for how to connect it.)

2 Into this VCR, insert the EURO-AV connector at the terminal marked "EURO-AV" *. Take the other end of this connector and insert the yellow (video) plug into the terminal on the other VCR marked "Video In"; then, take either a red or white (audio) plug and insert it into the terminal marked "Audio In". (If it's a stereo model, plug in both the red and white plugs at the two sockets marked "Audio In".)

3 On the other machine, select the line input (Line 1 or 2) depending on the connection you have just made. (See the explanation to the left.)

### *Editing*

1 Into this machine (playback VCR), insert a video tape with recording on it; into the other machine (recording VCR), insert a blank tape, or one that is to be copied onto.

2 On the drop-down panel of this machine, press EDIT ON/OFF until "EDIT" appears in the front panel display.

3 On the other machine (recording VCR) find the point on the tape you want to start recording and press **II** PAUSE; on this machine, find the point on the tape you want to start playing and press **II** PAUSE.

4 On this machine, press PLAY; on the other, press RECORD.

5 Release both PAUSE buttons at the same time.
Copying begins.

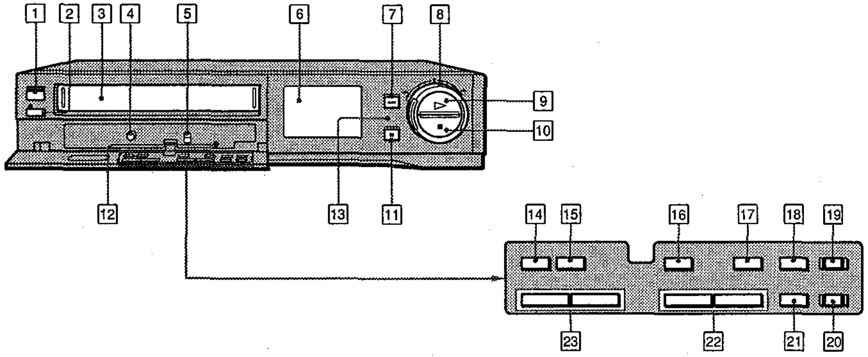
---

** If a EURO-AV connector is already attached to your TV, disconnect it from the TV.*

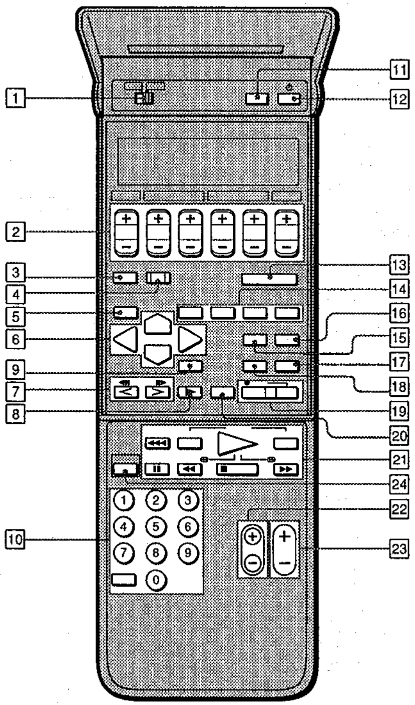
# For Your Information

## Identifying the Parts and Controls

### *Front Panel*



1 ⏻ ON/STANDBY switch and indicator
2 ⏏ EJECT button
3 Cassette compartment
4 SHARPNESS SOFT/SHARP control
5 COLOUR SYSTEM selector
(This switch is provided on the SLV-325VP models only.)
6 Display window
7 HI-SPEED REWIND button
8 DUAL MODE SHUTTLE ring
9 ▶ PLAY button
10 ■ STOP button
11 II PAUSE button
12 CL (clear) button
13 Remote sensor
14 TV/VTR button
15 INPUT SELECT button
16 EDIT ON/OFF button
17 VPS ON/OFF button
(This button is provided on the SLV-325VP models only.)
18 QUICK TIMER button
19 TIMER REC ON/OFF button
20 ● REC (record) button
21 TRACKING AUTO/MANUAL button
22 TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ buttons
23 PROGRAM +/– buttons

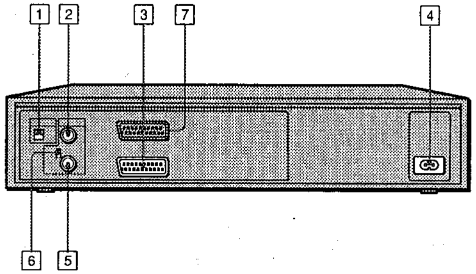


## Remote Control

The buttons on the Remote Control with the same name or mark as those on the unit have the same function. The buttons with an orange dot can be used to remotely control Sony TVs when the TV/VTR selector is set to TV. The TV/VTR button and/or the -/- - (10's digit) button cannot operate certain Sony TVs.

1 TV/VTR selector
2 Timer recording/clock set buttons
  D (date)
  TURN ON time
  TURN OFF time
  PROG (programme position) +/–
3 TIMER SET button
4 CLOCK SET button
5 MENU button
6 CURSOR ▲/▼/◀/▶ keys
7 FRAME ◀II/II▶/</> buttons
8 I▶ SLOW button
9 EXECUTE button
10 Numeric keys
11 TV/VTR button
12 ⏻ (on/standby) button
13 TRANSMIT button
14 TIMER REC buttons
  TIMER ON SCREEN
  CHECK
  CLEAR
  ON/OFF
15 CLOCK/COUNTER button
16 INPUT SELECT button
17 DATA SCREEN button
18 COUNTER RESET button
19 ● REC (record) buttons
20 X2 button
21 Tape transport buttons
  II PAUSE
  ▶ PLAY
  ■ STOP
  ◀◀◀ HI-SPEED REWIND
  ⏪/⏩ SEARCH (reverse/forward)
  ◀◀ REW (rewind)
  ▶▶ FF (fast-forward)
22 PROG (programme) +/– buttons
23 VOL (volume) +/– buttons
24 REPLAY

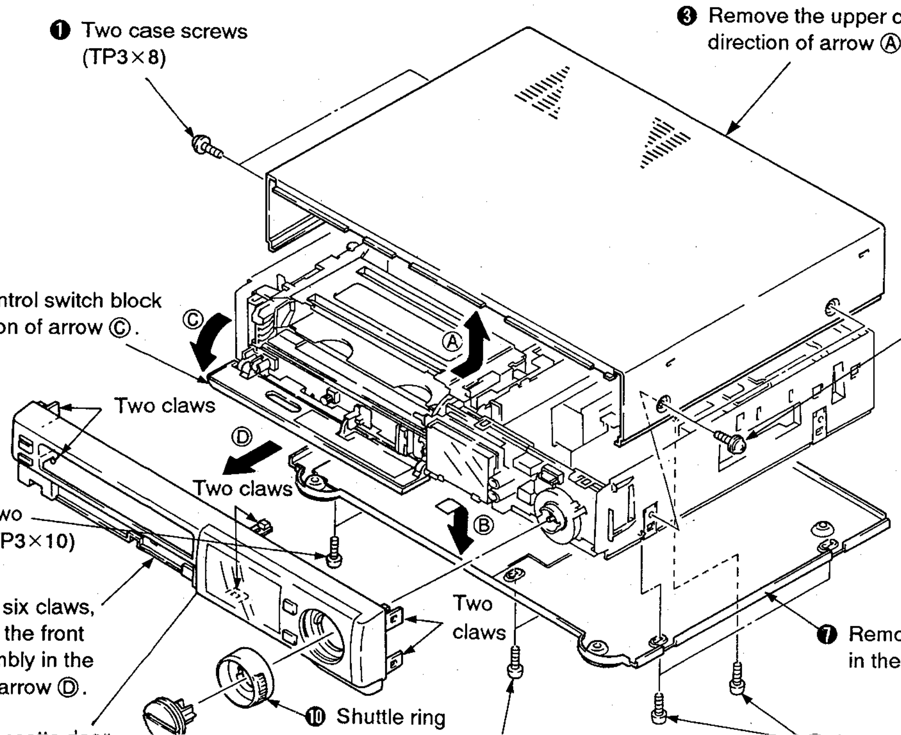
## Rear Panel



1 RF CHANNEL screw (30 - 39)
2 AERIAL OUT socket
3 ⊖ EURO-AV (21-pin) socket
4 AC inlet
5 AERIAL IN socket
6 LOCAL/DX switch
7 CANAL PLUS socket (on the SLV-325CP only)

# SECTION 2
# DISASSEMBLY

## 2-1. FRONT PANEL ASSEMBLY AND REMOVAL OF CABINET



❶ Two case screws (TP3×8)

❷ Two case screws (TP3×8)

❸ Remove the upper case in the direction of arrow Ⓐ.

❹ Loosen the three screws (BVTP 3×10)

❺ Loosen the two screws (BVTP3×10)

❻ Loosen the two screws (BVTP3×10)

❼ Remove the bottom plate assembly in the direction of arrow Ⓑ.

❽ Open the control switch block in the direction of arrow Ⓒ.

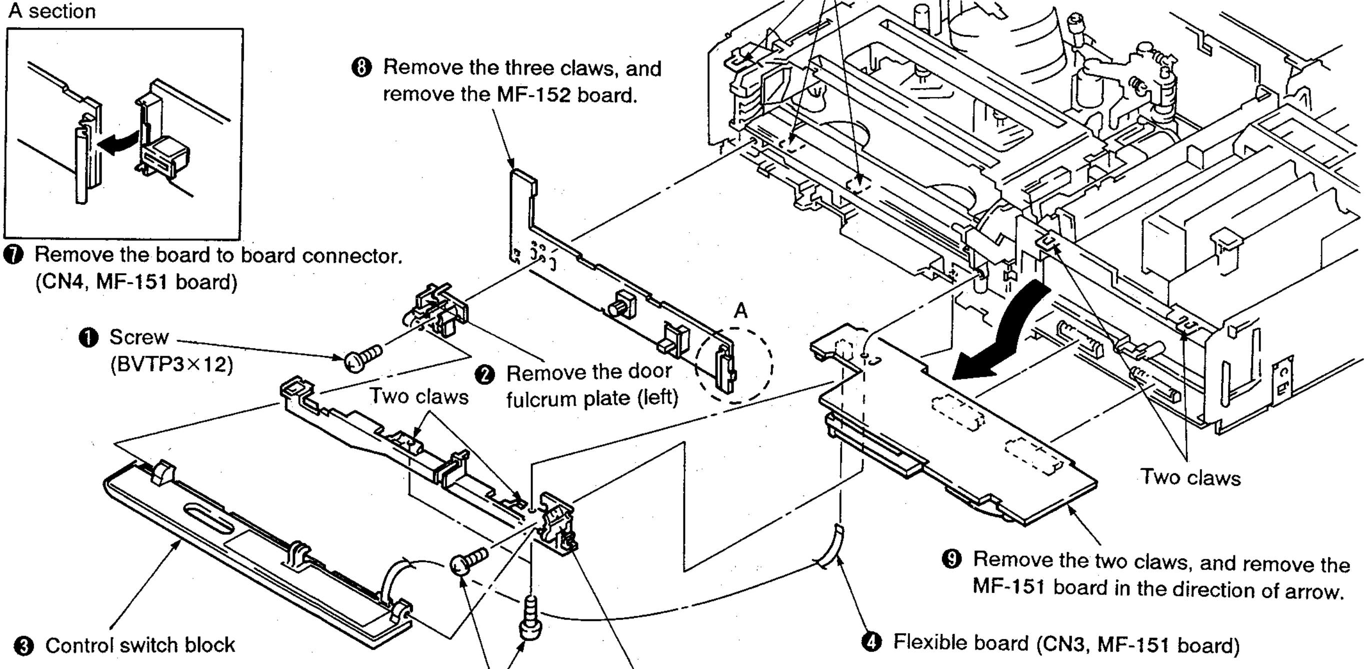
❾ Playback and stop button assembly

❿ Shuttle ring

⓫ Remove the six claws, and remove the front panel assembly in the direction of arrow Ⓓ.

Note: Keep the cassette door opened when mounting the front panel assembly.

## 2-2. REMOVAL OF CONTROL SWITCH BLOCK AND MF-151/MF-152 BOARD



❶ Screw (BVTP3×12)

❷ Remove the door fulcrum plate (left)

❸ Control switch block

❹ Flexible board (CN3, MF-151 board)

❺ Three screws (BVTP3×12)

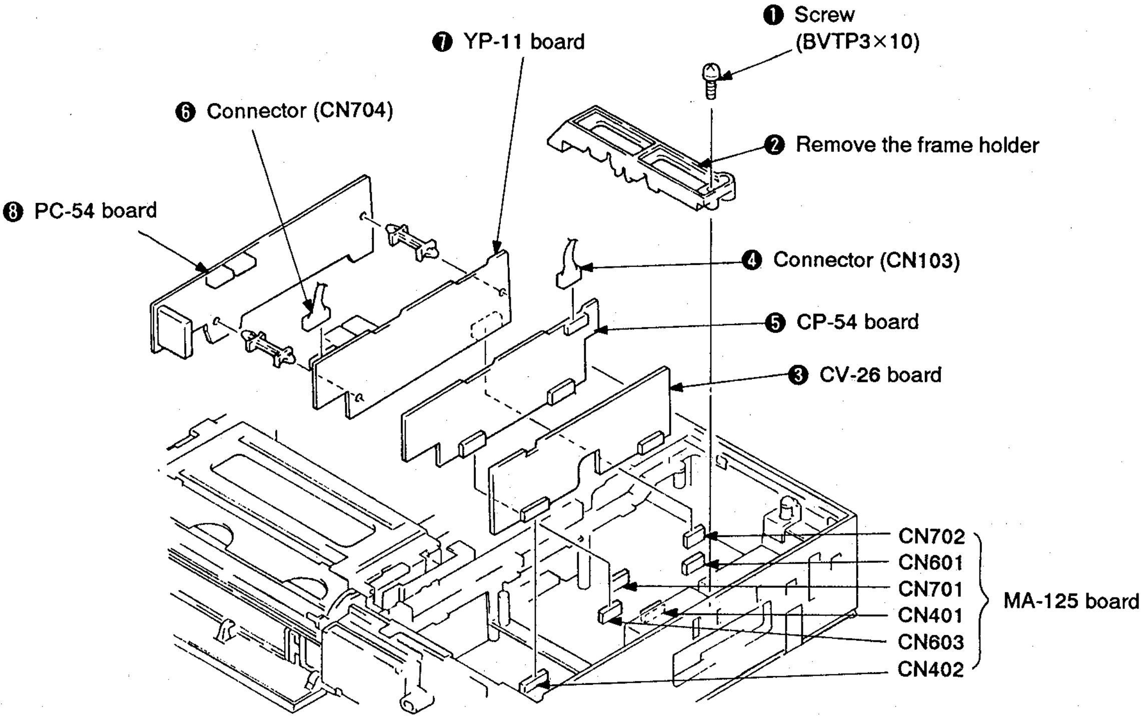
❻ Remove the frame escutcheon assembly.

❼ Remove the board to board connector. (CN4, MF-151 board)

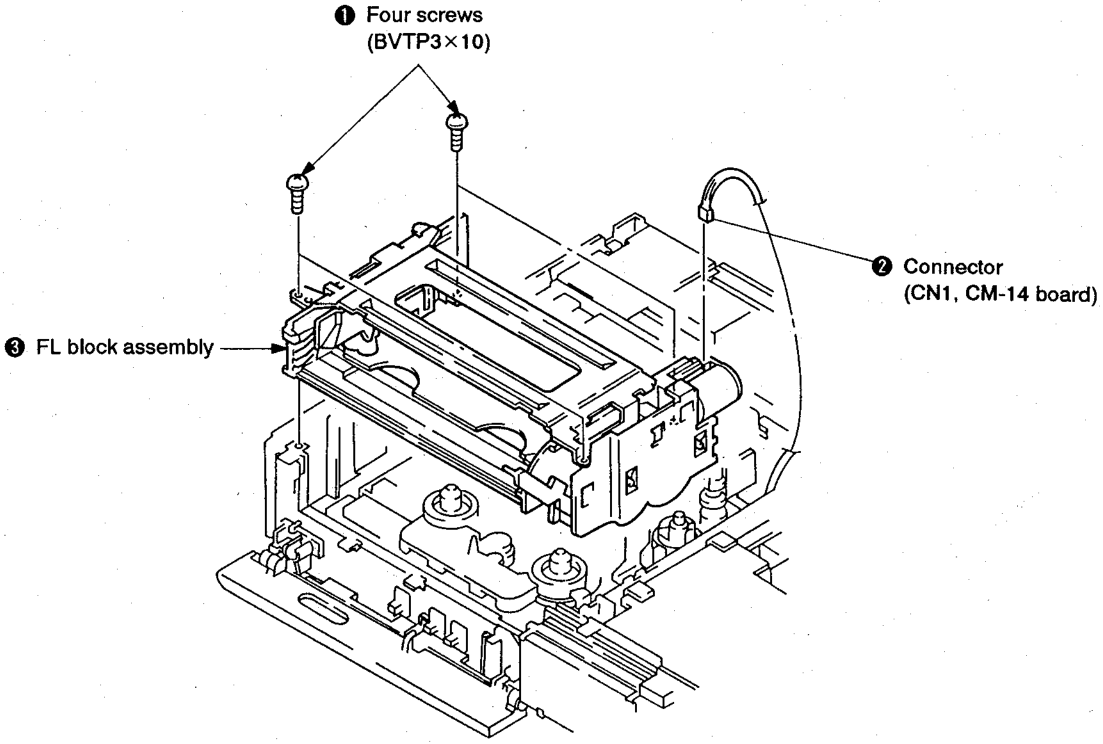
❽ Remove the three claws, and remove the MF-152 board.

❾ Remove the two claws, and remove the MF-151 board in the direction of arrow.

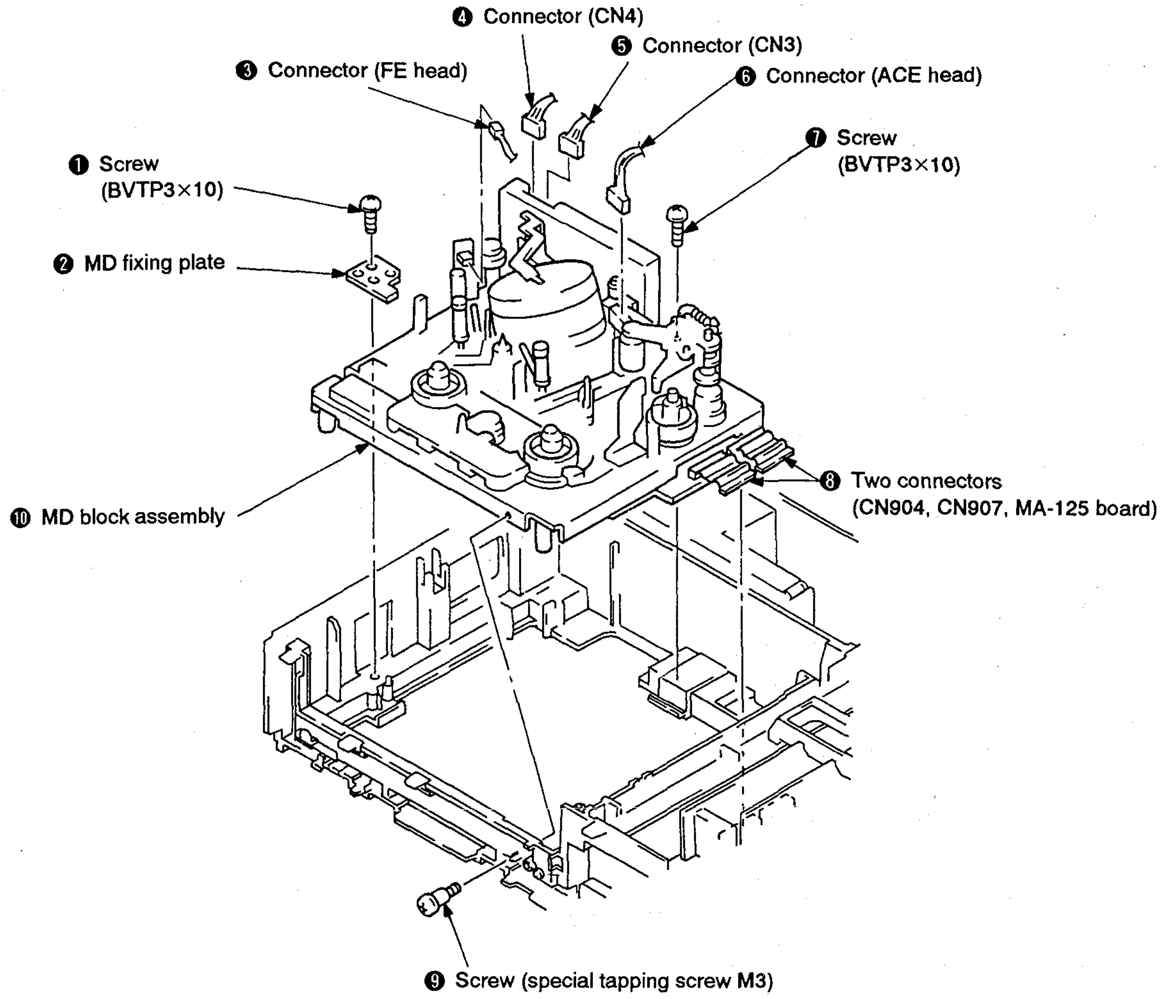
## 2-3. REMOVAL OF PC-54, YP-11, CV-26 AND CP-52 BOARDS


❶ Screw (BVTP3×10)
❼ YP-11 board
❻ Connector (CN704)
❷ Remove the frame holder
❽ PC-54 board
❹ Connector (CN103)
❺ CP-54 board
❸ CV-26 board
CN702
CN601
CN701
CN401
CN603
CN402
MA-125 board

## 2-4. REMOVAL OF FL BLOCK ASSEMBLY

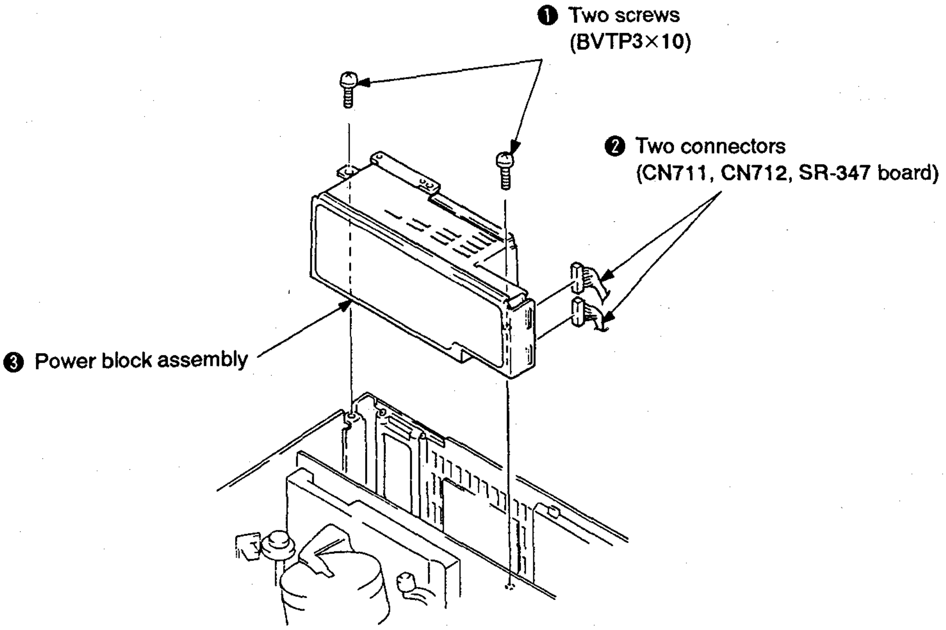

❶ Four screws (BVTP3×10)
❷ Connector (CN1, CM-14 board)
❸ FL block assembly

## 2-5. REMOVAL OF MD BLOCK



❹ Connector (CN4)
❺ Connector (CN3)
❸ Connector (FE head)
❻ Connector (ACE head)
❼ Screw (BVTP3×10)
❶ Screw (BVTP3×10)
❷ MD fixing plate
❽ Two connectors (CN904, CN907, MA-125 board)
❿ MD block assembly
❾ Screw (special tapping screw M3)

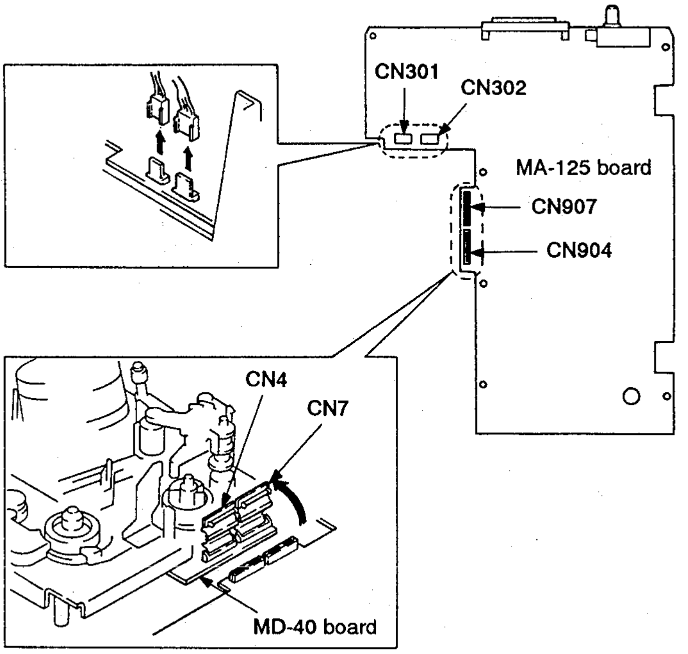
## 2-6. REMOVAL OF POWER BLOCK ASSEMBLY

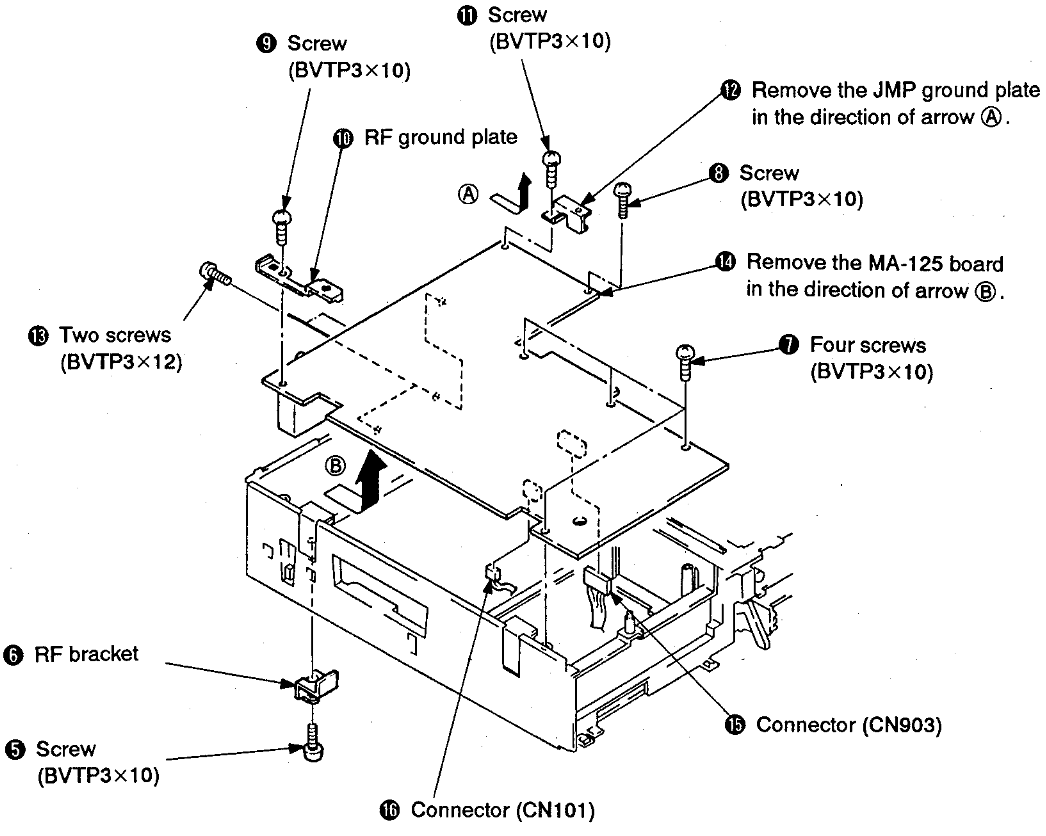


❶ Two screws (BVTP3×10)
❷ Two connectors (CN711, CN712, SR-347 board)
❸ Power block assembly

## 2-7. REMOVAL OF MA-125 BOARD

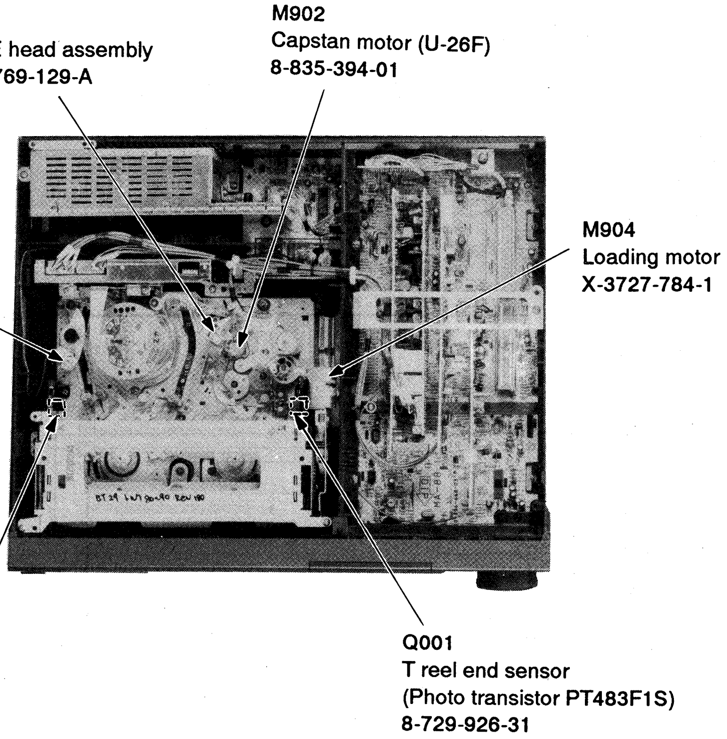
❶ Remove the MF-151 board according to 2-2.
❷ Remove PC-54, YP-11, CV-26 and CP-52 board according to 2-3.
❸ Remove the power supply block assembly according to 2-6.
❹ Remove the four connectors (CN301, 302, 904 and 907) from the MA-125 board.


CN301
CN302
MA-125 board
CN907
CN904
CN4
CN7
MD-40 board

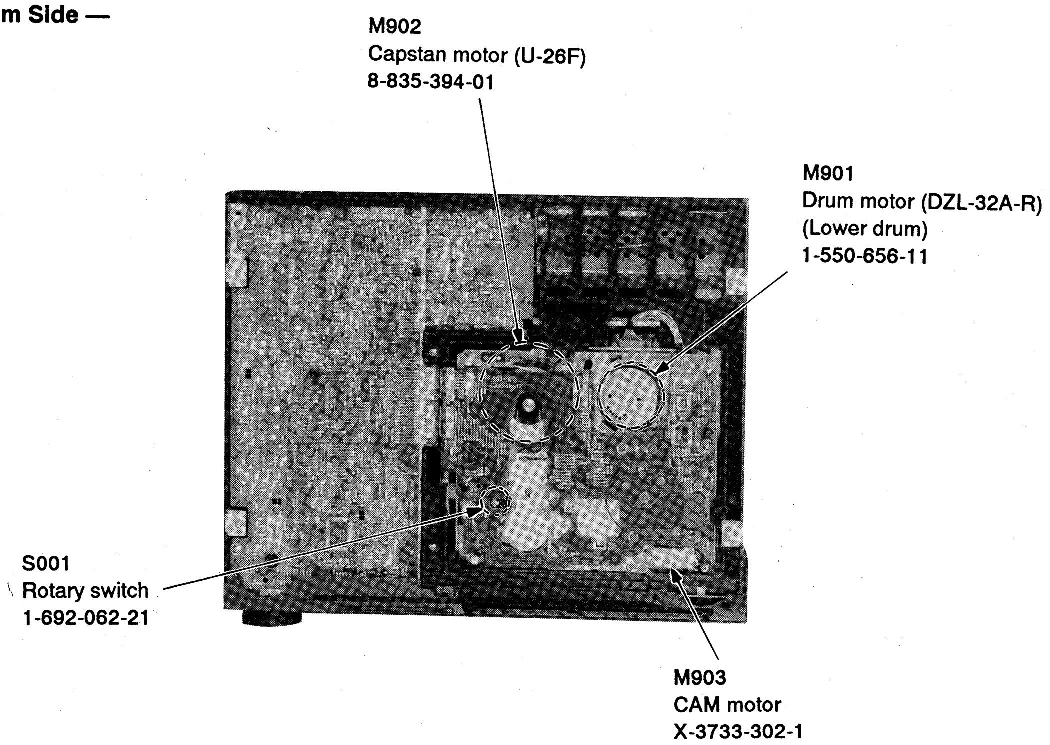

⓫ Screw (BVTP3×10)
❾ Screw (BVTP3×10)
⓬ Remove the JMP ground plate in the direction of arrow Ⓐ.
❿ RF ground plate
Ⓐ
❽ Screw (BVTP3×10)
⓮ Remove the MA-125 board in the direction of arrow Ⓑ.
⓭ Two screws (BVTP3×12)
❼ Four screws (BVTP3×10)
Ⓑ
❻ RF bracket
❺ Screw (BVTP3×10)
⓯ Connector (CN903)
⓰ Connector (CN101)

## 2-8. INTERNAL VIEWS

— Top Side —

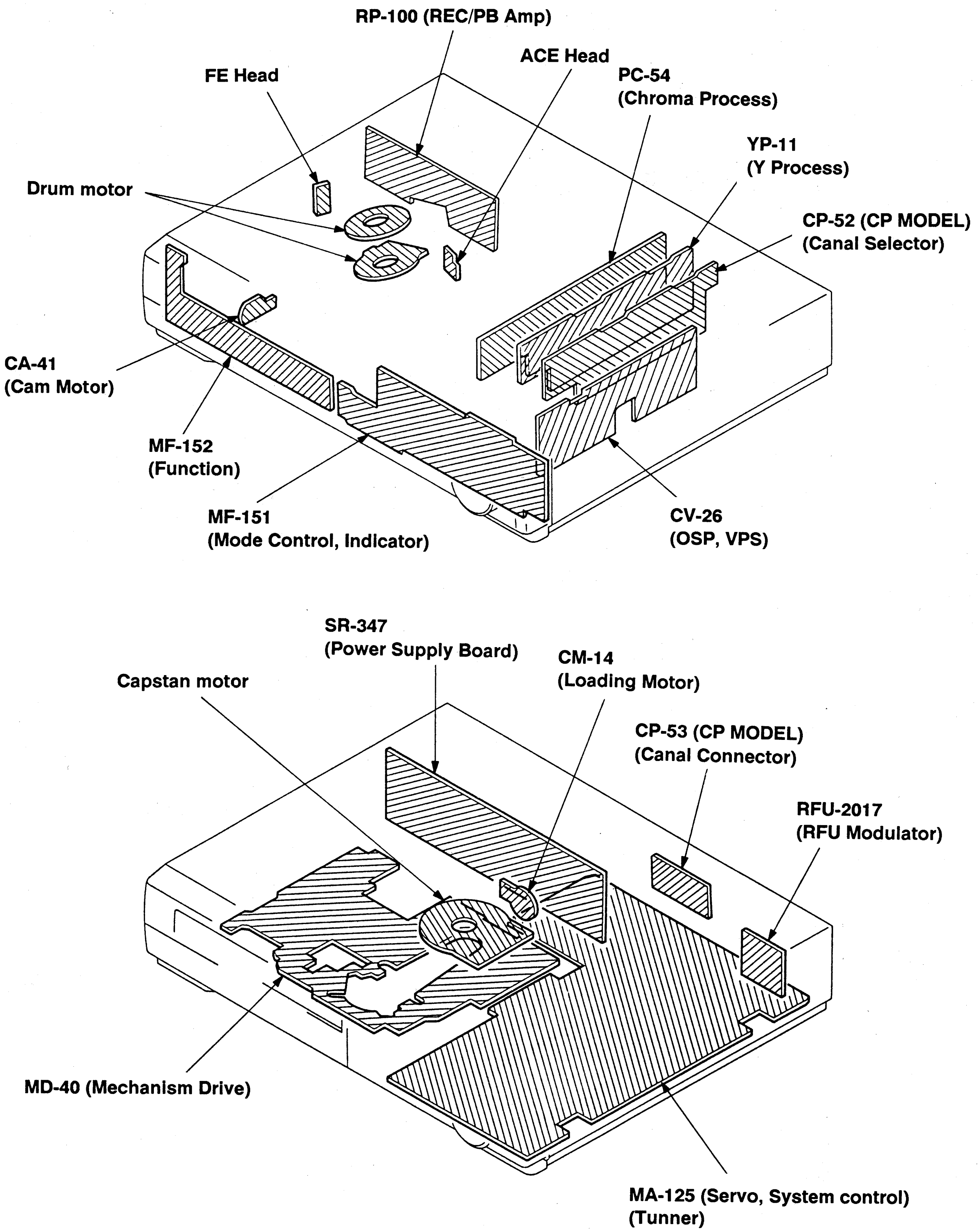

ACE head assembly
A-6769-129-A
M902
Capstan motor (U-26F)
8-835-394-01
FE head
1-543-647-11
M904
Loading motor
X-3727-784-1
Q002
S reel end sensor
(Photo transistor PT483F1S)
8-729-926-31
Q001
T reel end sensor
(Photo transistor PT483F1S)
8-729-926-31

— Bottom Side —


M902
Capstan motor (U-26F)
8-835-394-01
M901
Drum motor (DZL-32A-R)
(Lower drum)
1-550-656-11
S001
Rotary switch
1-692-062-21
M903
CAM motor
X-3733-302-1

# SECTION 3
# DIAGRAMS

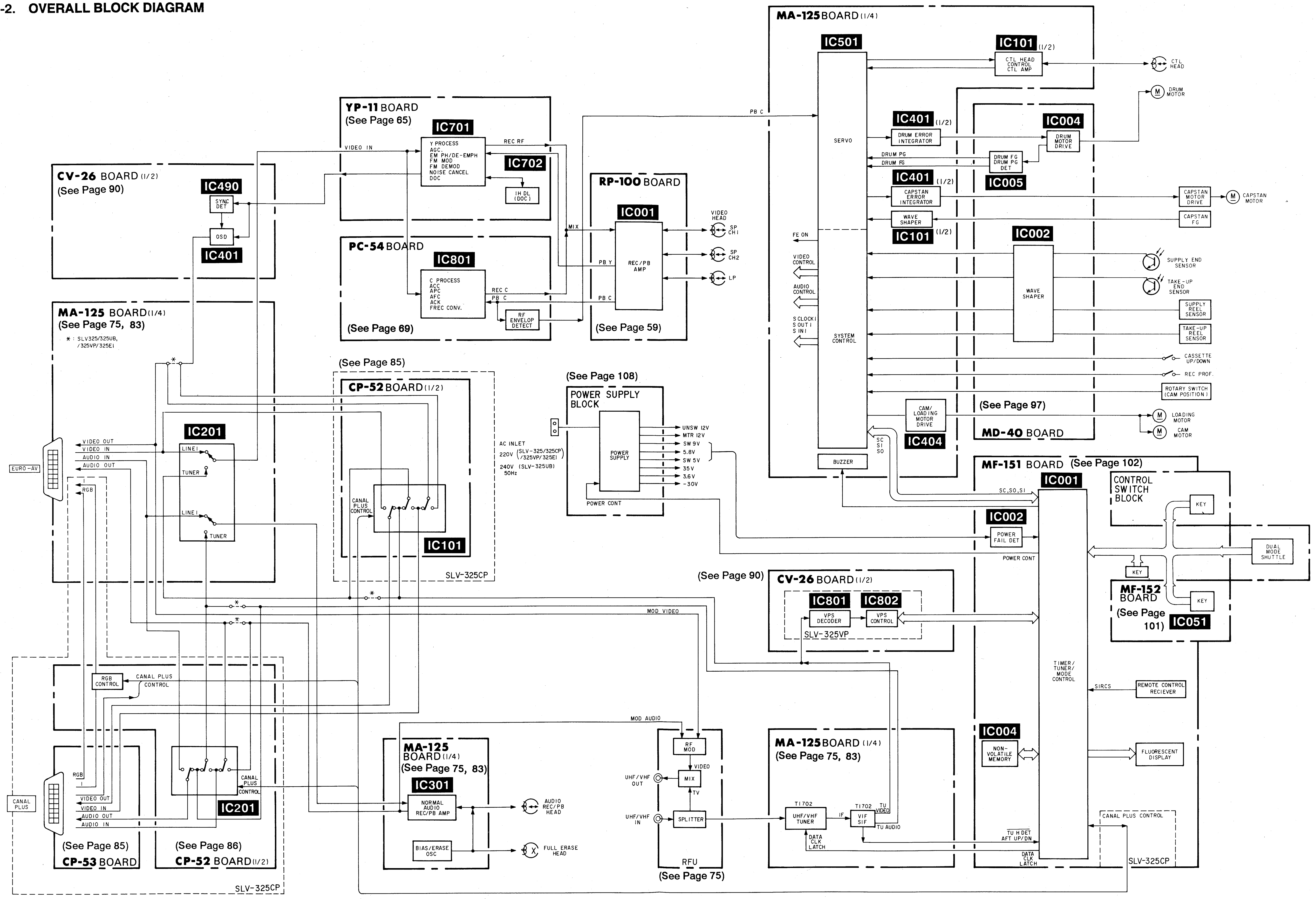
## 3-1. CIRCUIT BOARDS LOCATION


RP-100 (REC/PB Amp)
FE Head
ACE Head
PC-54
(Chroma Process)
YP-11
(Y Process)
Drum motor
CP-52 (CP MODEL)
(Canal Selector)
CA-41
(Cam Motor)
MF-152
(Function)
MF-151
(Mode Control, Indicator)
CV-26
(OSP, VPS)
SR-347
(Power Supply Board)
Capstan motor
CM-14
(Loading Motor)
CP-53 (CP MODEL)
(Canal Connector)
RFU-2017
(RFU Modulator)
MD-40 (Mechanism Drive)
MA-125 (Servo, System control)
(Tunner)

3-2.

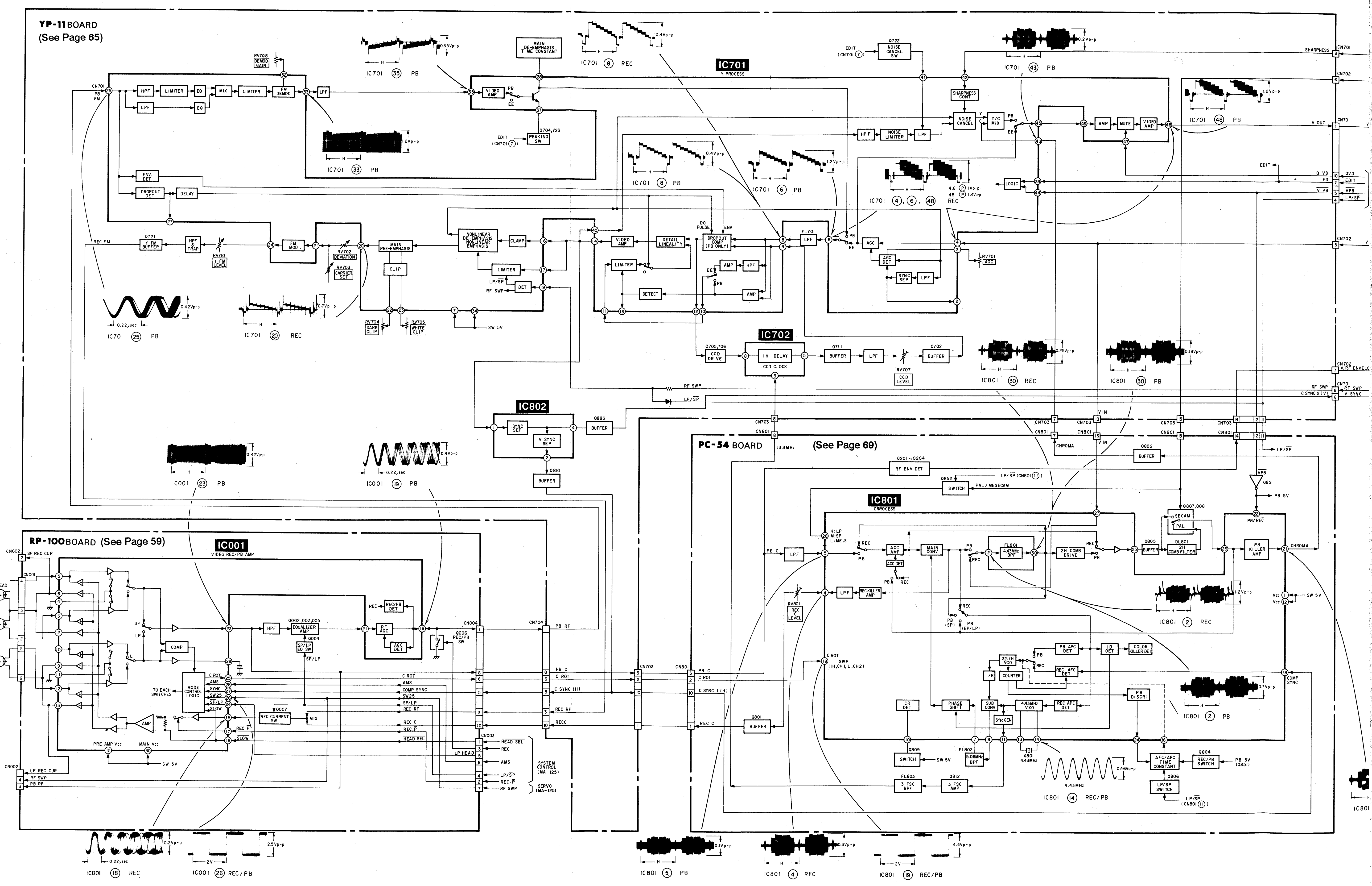
MODEL)
ector)
lator)
l)

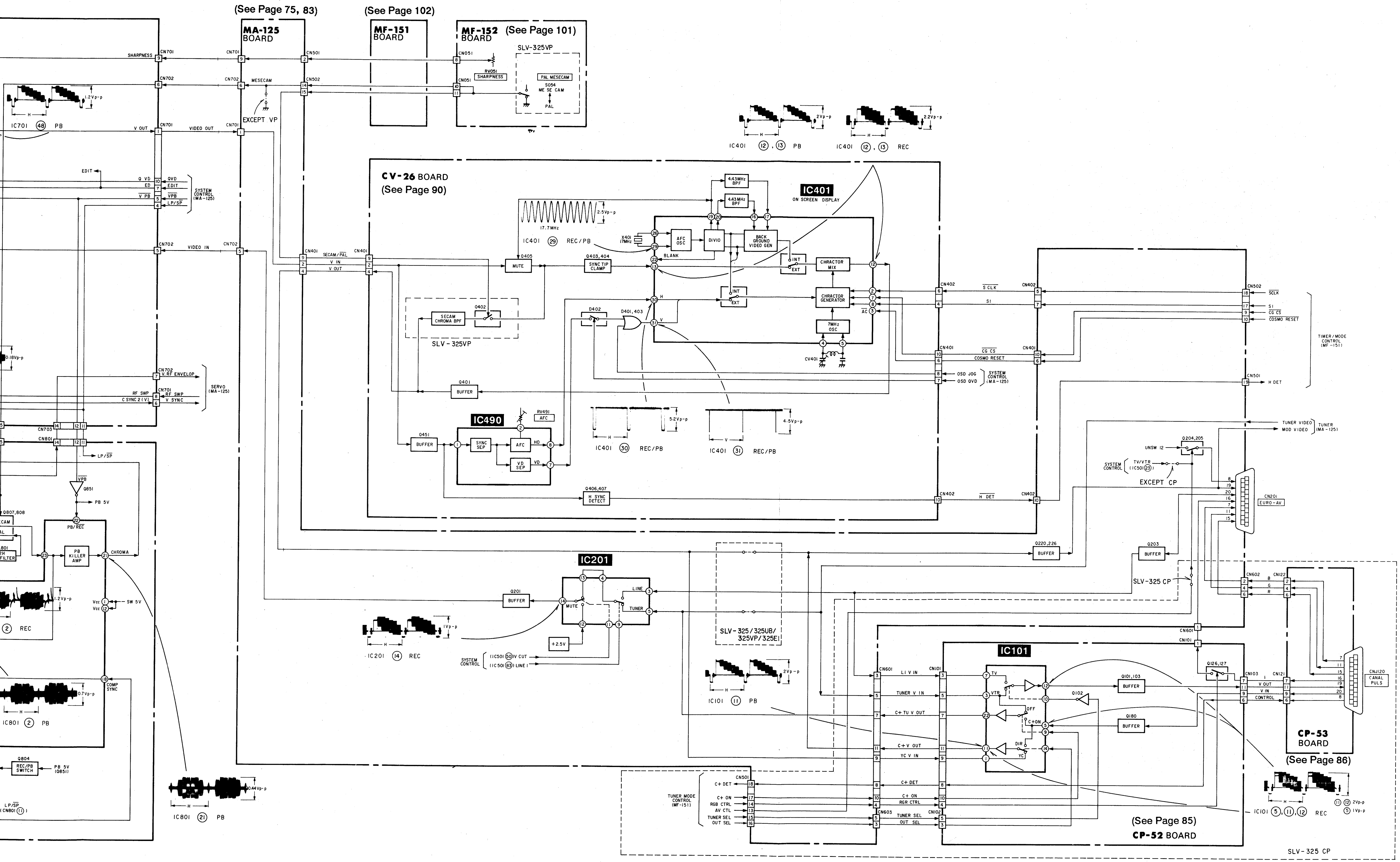
## 3-2. OVERALL BLOCK DIAGRAM



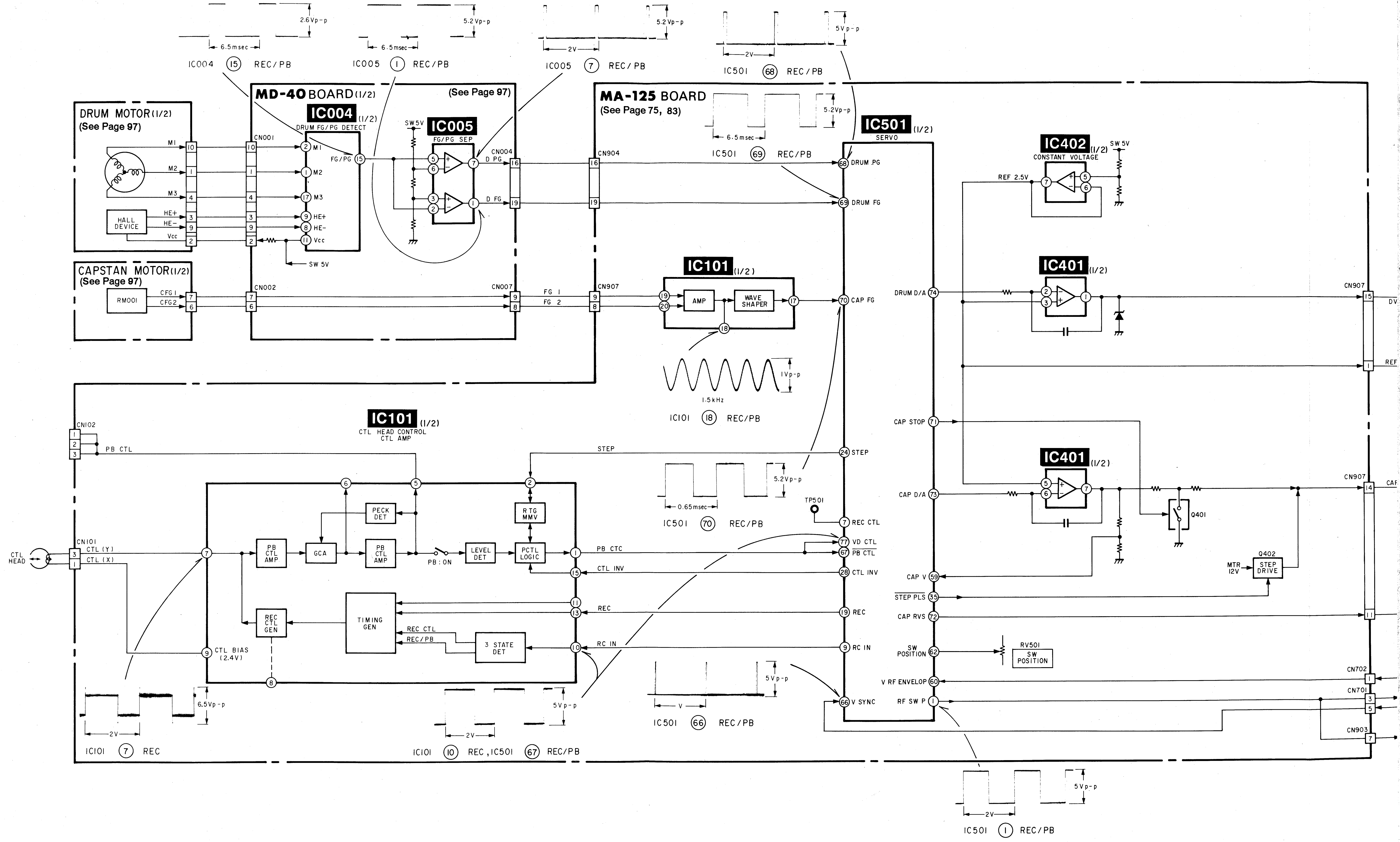
YP-11 BOARD (See Page 65)
IC701
VIDEO IN
REC RF
Y PROCESS AGC EM PH/DE-EMPH FM MOD FM DEMOD NOISE CANCEL DOC
IC702
1H DL (DOC)
PC-54 BOARD
IC801
C PROCESS ACC APC AFC ACK FREC CONV.
REC C
PB C
RF ENVELOP DETECT
(See Page 69)
CV-26 BOARD (1/2) (See Page 90)
IC490
SYNC DET
OSD
IC401
MA-125 BOARD (1/4) (See Page 75, 83)
*: SLV325/325UB, /325VP/325EI
IC201
LINE I
TUNER
VIDEO OUT
VIDEO IN
AUDIO IN
AUDIO OUT
EURO-AV
RGB
(See Page 85)
CP-52 BOARD (1/2)
CANAL PLUS CONTROL
IC101
SLV-325CP
RP-100 BOARD
IC001
MIX
PB Y
PB C
REC/PB AMP
VIDEO HEAD
SP CH1
SP CH2
LP
(See Page 59)
(See Page 108)
POWER SUPPLY BLOCK
POWER SUPPLY
AC INLET
220V (SLV-325/325CP /325VP/325EI)
240V (SLV-325UB)
50Hz
UNSW 12V
MTR 12V
SW 9V
5.8V
SW 5V
35V
3.6V
-30V
POWER CONT
MA-125 BOARD (1/4)
IC501
SERVO
SYSTEM CONTROL
PB C
FE ON
VIDEO CONTROL
AUDIO CONTROL
S CLOCK I
S OUT I
S IN I
IC101 (1/2)
CTL HEAD CONTROL CTL AMP
CTL HEAD
DRUM MOTOR
IC401 (1/2)
DRUM ERROR INTEGRATOR
DRUM PG
DRUM FG
IC004
DRUM MOTOR DRIVE
DRUM FG DRUM PG DET
IC005
CAPSTAN ERROR INTEGRATOR
CAPSTAN MOTOR DRIVE
CAPSTAN MOTOR
CAPSTAN FG
WAVE SHAPER
IC002
WAVE SHAPER
SUPPLY END SENSOR
TAKE-UP END SENSOR
SUPPLY REEL SENSOR
TAKE-UP REEL SENSOR
CASSETTE UP/DOWN
REC PROF.
ROTARY SWITCH (CAM POSITION)
(See Page 97)
MD-40 BOARD
CAM/LOADING MOTOR DRIVE
IC404
LOADING MOTOR
CAM MOTOR
SC SI SO
BUZZER
MF-151 BOARD (See Page 102)
IC001
SC,SO,SI
IC002
POWER FAIL DET
POWER CONT
CONTROL SWITCH BLOCK
KEY
DUAL MODE SHUTTLE
MF-152 BOARD (See Page 101)
IC051
TIMER/TUNER/MODE CONTROL
SIRCS
REMOTE CONTROL RECIEVER
IC004
NON-VOLATILE MEMORY
FLUORESCENT DISPLAY
CANAL PLUS CONTROL
TU H DET
AFT UP/DN
DATA CLK LATCH
SLV-325CP
(See Page 90)
CV-26 BOARD (1/2)
IC801
IC802
VPS DECODER
VPS CONTROL
SLV-325VP
MOD VIDEO
MOD AUDIO
RGB CONTROL
CANAL PLUS CONTROL
CANAL PLUS
IC201
(See Page 85)
CP-53 BOARD
(See Page 86)
CP-52 BOARD (1/2)
SLV-325CP
MA-125 BOARD (1/4) (See Page 75, 83)
IC301
NORMAL AUDIO REC/PB AMP
BIAS/ERASE OSC
AUDIO REC/PB HEAD
FULL ERASE HEAD
RF MOD
VIDEO
MIX
TV
SPLITTER
UHF/VHF OUT
UHF/VHF IN
RFU
(See Page 75)
MA-125 BOARD (1/4) (See Page 75, 83)
T1702
UHF/VHF TUNER
IF
VIF SIF
TU VIDEO
TU AUDIO
DATA CLK LATCH

## 3-3. VIDEO BLOCK DIAGRAM

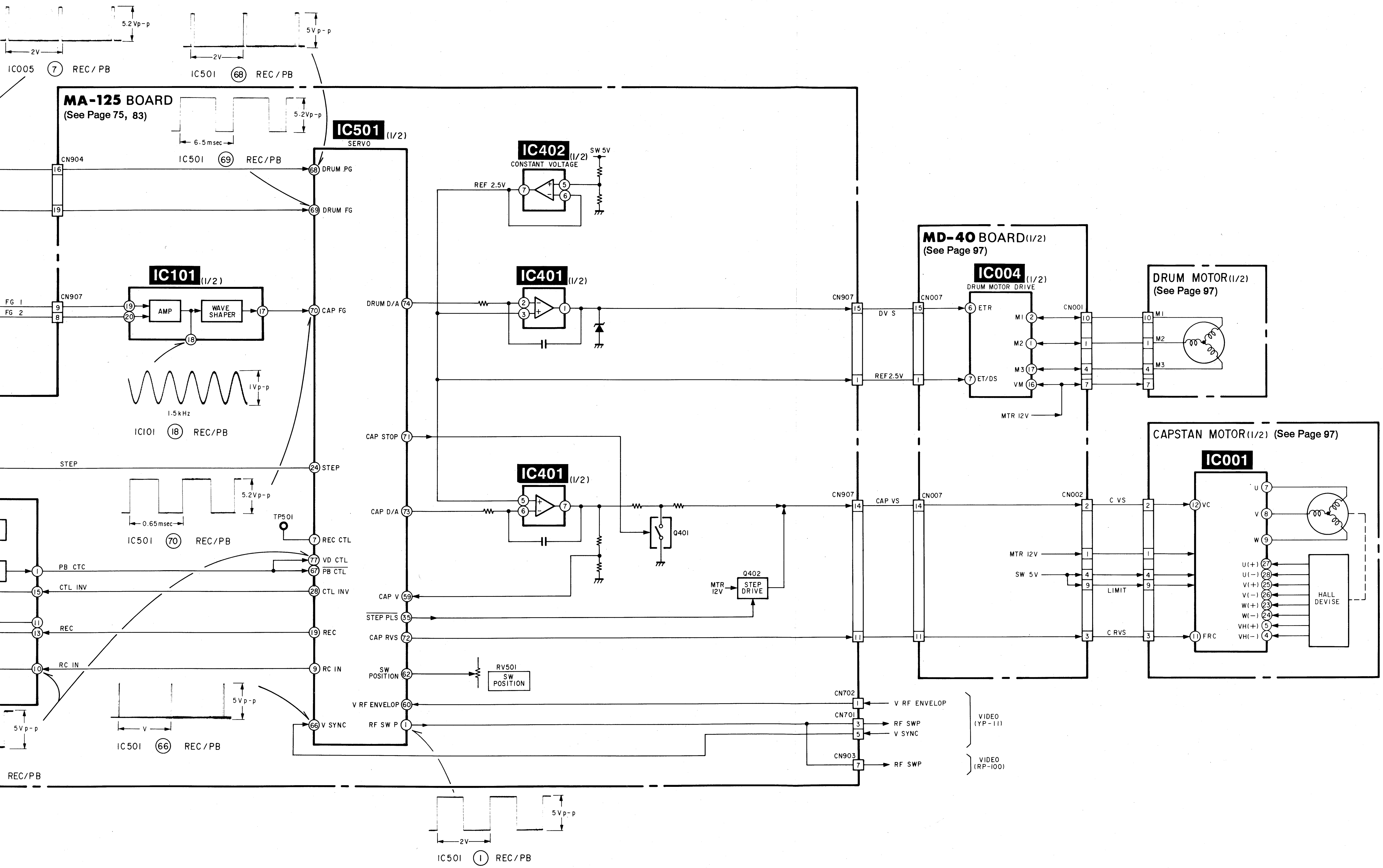

YP-11 BOARD
(See Page 65)
IC701
Y. PROCESS
IC702
CCD CLOCK
IC802
IC801
CRROCESS
RP-100 BOARD (See Page 59)
IC001
VIDEO REC/PB AMP
PC-54 BOARD (See Page 69)
HPF
LIMITER
EQ
MIX
FM DEMOD
LPF
VIDEO AMP
MAIN DE-EMPHASIS TIME CONSTANT
PEAKING SW
ENV. DET
DROPOUT DET
DELAY
Y-FM BUFFER
HPF & TRAP
FM MOD.
MAIN PRE-EMPHASIS
CLIP
NONLINEAR DE-EMPHASIS NONLINEAR EMPHASIS
CLAMP
DET
DETAIL LINEALITY
DROPOUT COMP (PB ONLY)
DETECT
AMP
NOISE CANCEL SW
SHARPNESS CONT
NOISE CANCEL
Y/C MIX
NOISE LIMITER
MUTE
LOGIC
AGC
AGC DET
SYNC SEP
V SYNC SEP
BUFFER
CCD DRIVE
1H DELAY
RV707 CCD LEVEL
RV708 DEMOD GAIN
RV710 Y-FM LEVEL
RV702 DEVIATION
RV703 CARRIER SET
RV704 DARK CLIP
RV705 WHITE CLIP
RV701 AGC
SW 5V
RF SWP
LP/SP
C SYNC 2 (V)
V OUT
SHARPNESS
QVD
EDIT
VPB
V RF ENVELOP
CN701
CN702
CN703
CN801
CN002
CN001
CN004
CN003
CN704
VIDEO HEAD
SP CH1
SP CH2
LP
COMP
MODE CONTROL LOGIC
TO EACH SWITCHES
C ROT
AMS
SYNC
SW25
SP/LP
SLOW
REC P
EQUALIZER AMP
SP/LP EQ SW
RF AGC
AGC DET
REC/PB DET
REC/PB SW
REC CURRENT SW
MIX
PRE AMP Vcc
MAIN Vcc
LP REC CUR
SP REC CUR
PB RF
HEAD SEL
LP HEAD
REC
SYSTEM CONTROL (MA-125)
SERVO (MA-125)
REC RF
REC C
PB C
C SYNC (H)
RF ENV DET
SWITCH
PAL / MESECAM
ACC AMP
ACC DET
MAIN CONV
FL801 4.43MHz BPF
2H COMB DRIVE
SECAM
PAL
2H COMB FILTER
PB KILLER AMP
CHROMA
REC KILLER AMP
RV801 REC C LEVEL
H:LP M:SP L:ME.S
SWP (1H, CH1, L, CH2)
321fH VCO
1/8
COUNTER
PB APC DET
REC AFC DET
ID DET
COLOR KILLER DET
PB DISCRI
CR DET
PHASE SHIFT
SUB CONV
4.43MHz VXO
3fsc GEN
REC APC DET
AFC/APC TIME CONSTANT
REC/PB SWITCH
LP/SP SWITCH
FL802 5.06MHz BPF
FL803 3 FSC BPF
3 FSC AMP
X801 4.43MHz
13.3MHz
COMP SYNC
PB 5V
SW 5V
IC701 ㉟ PB 0.35Vp-p
IC701 ⑧ REC 0.4Vp-p
IC701 ㊸ PB 0.2Vp-p
IC701 ㊽ PB 1.2Vp-p
IC701 ㉝ PB 1.2Vp-p
IC701 ⑧ PB 0.4Vp-p
IC701 ⑥ PB 1.2Vp-p
IC701 ④, ⑥, ㊽ REC
IC701 ㉕ PB 0.42Vp-p 0.22μsec
IC701 ⑳ REC 0.7Vp-p
IC801 ㉚ REC 0.25Vp-p
IC801 ㉚ PB 0.18Vp-p
IC001 ㉓ PB 0.42Vp-p
IC001 ⑲ PB 0.4Vp-p 0.22μsec
IC801 ② REC 1.2Vp-p
IC801 ② PB 0.7Vp-p
IC801 ⑭ REC/PB 0.46Vp-p 4.43MHz
IC001 ⑱ REC 0.2Vp-p 0.22μsec
IC001 ㉖ REC/PB 2.5Vp-p 2V
IC801 ⑤ PB 0.1Vp-p
IC801 ④ REC 0.3Vp-p
IC801 ⑲ REC/PB 4.4Vp-p 2V


(See Page 75, 83)
MA-125
BOARD
(See Page 102)
MF-151
BOARD
MF-152 (See Page 101)
BOARD
SLV-325VP
RV051
SHARPNESS
PAL MESECAM
S054
ME SE CAM
PAL
SHARPNESS
CN701
CN702
MESECAM
EXCEPT VP
CN501
CN502
CN051
1.2Vp-p
IC701 (48) PB
V OUT
VIDEO OUT
EDIT
Q VD
ED
V PB
QVD
EDIT
VPB
LP/SP
SYSTEM CONTROL (MA-125)
VIDEO IN
CN401
SECAM/PAL
V IN
V OUT
CV-26 BOARD
(See Page 90)
IC401
ON SCREEN DISPLAY
2.5Vp-p
17.7MHz
IC401 (29) REC/PB
4.43MHz BPF
4.43MHz BPF
X401 17MHz
AFC OSC
DIV10
BACK GROUND VIDEO GEN
BLANK
INT
EXT
CHRACTOR MIX
CHRACTOR GENERATOR
7MHz OSC
CV401
Q405
MUTE
Q403,404
SYNC TIP CLAMP
Q402
SECAM CHROMA BPF
SLV-325VP
D402
D401,403
H
V
2Vp-p
2.2Vp-p
IC401 (12),(13) PB
IC401 (12),(13) REC
Q401
BUFFER
IC490
RV491
AFC
Q451
BUFFER
SYNC SEP
AFC
HD
VD SEP
VD
5.2Vp-p
IC401 (30) REC/PB
4.5Vp-p
IC401 (31) REC/PB
Q406,407
H SYNC DETECT
CN402
SCLK
SI
AC
CG CS
COSMO RESET
OSD JOG
OSD QVD
SYSTEM CONTROL (MA-125)
H DET
CN502
SCLK
SI
CG CS
COSMO RESET
TIMER/MODE CONTROL (MF-151)
CN501
H DET
TUNER VIDEO
MOD VIDEO
TUNER (MA-125)
UNSW 12
Q204,205
SYSTEM CONTROL
TV/VTR (IC501 (23))
EXCEPT CP
CN201
EURO-AV
0.18Vp-p
CN702
V.RF ENVELOP
CN701
RF SWP
C SYNC 2 (V)
RF SWP
V SYNC
SERVO (MA-125)
CN703
CN801
LP/SP
VPB
Q851
PB 5V
Q807,808
PB/REC
PB KILLER AMP
CHROMA
1.2Vp-p
Vcc
SW 5V
(2) REC
COMP SYNC
0.7Vp-p
IC801 (2) PB
Q804
REC/PB SWITCH
PB 5V (Q851)
LP/SP (CN801 (11))
0.44Vp-p
IC801 (21) PB
Q220,226
BUFFER
Q203
BUFFER
IC201
Q201
BUFFER
MUTE
LINE
TUNER
+2.5V
1Vp-p
IC201 (14) REC
SYSTEM CONTROL
(IC501 (50)) V CUT
(IC501 (83)) LINE I
SLV-325/325UB/325VP/325EI
2Vp-p
IC101 (11) PB
SLV-325 CP
CN602
CN122
B
G
R
CN601
CN101
Q126,127
CN103
CN121
V OUT
V IN
CONTROL
CNJ120
CANAL PULS
CP-53
BOARD
(See Page 86)
IC101
CN601
CN101
LI V IN
TUNER V IN
C+ TU V OUT
C+V OUT
YC V IN
TV
VTR
OFF
C+ON
DIR
YC
Q101,103
BUFFER
Q102
Q180
BUFFER
CN501
C+ DET
C+ ON
RGB CTRL
AV CTL
TUNER SEL
OUT SEL
TUNER MODE CONTROL (MF-151)
C+ DET
C+ ON
RGR CTRL
CN603
CN102
TUNER SEL
OUT SEL
(See Page 85)
CP-52 BOARD
IC101 (5),(11),(12) REC
(11) (12) 2Vp-p
(5) 1Vp-p
SLV-325 CP

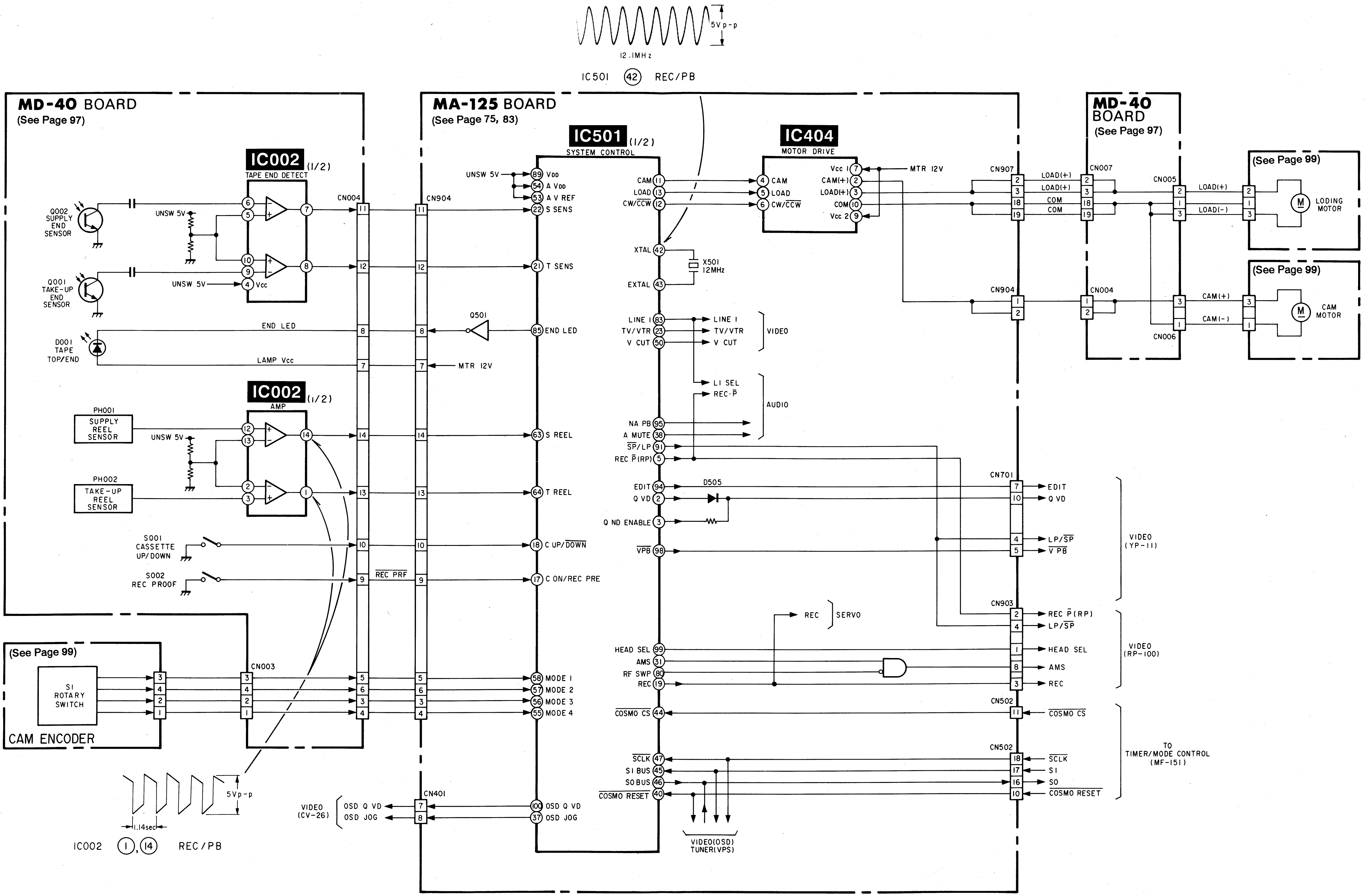
## 3-4. SERVO BLOCK DIAGRAM



2.6Vp-p
6.5msec
IC004 (15) REC/PB
5.2Vp-p
6.5msec
IC005 (1) REC/PB
5.2Vp-p
2V
IC005 (7) REC/PB
5Vp-p
2V
IC501 (68) REC/PB
MD-40 BOARD (1/2)
(See Page 97)
IC004 (1/2)
DRUM FG/PG DETECT
SW5V
IC005
FG/PG SEP
DRUM MOTOR (1/2)
(See Page 97)
M1
M2
M3
HALL DEVICE
HE+
HE-
Vcc
CN001
M1
M2
M3
HE+
HE-
Vcc
FG/PG
CN004
D PG
D FG
SW 5V
CAPSTAN MOTOR (1/2)
(See Page 97)
RM001
CFG1
CFG2
CN002
CN007
MA-125 BOARD
(See Page 75, 83)
5.2Vp-p
6.5msec
IC501 (69) REC/PB
CN904
IC501 (1/2)
SERVO
DRUM PG
DRUM FG
IC402 (1/2)
CONSTANT VOLTAGE
SW 5V
REF 2.5V
CN907
FG 1
FG 2
IC101 (1/2)
AMP
WAVE SHAPER
CAP FG
1Vp-p
1.5kHz
IC101 (18) REC/PB
DRUM D/A
IC401 (1/2)
CN907
DV
REF
CAP STOP
IC401 (1/2)
CAP D/A
CN907
CAP
Q401
CN102
PB CTL
IC101 (1/2)
CTL HEAD CONTROL
CTL AMP
STEP
5.2Vp-p
0.65msec
IC501 (70) REC/PB
TP501
REC CTL
VD CTL
PB CTL
CTL INV
REC
RC IN
CTL HEAD
CN101
CTL (Y)
CTL (X)
PB CTL AMP
GCA
PECK DET
PB CTL AMP
PB:ON
LEVEL DET
RTG MMV
PCTL LOGIC
PB CTC
CTL INV
REC
RC IN
REC CTL GEN
TIMING GEN
REC CTL
REC/PB
3 STATE DET
CTL BIAS (2.4V)
CAP V
STEP PLS
CAP RVS
SW POSITION
RV501
SW POSITION
MTR 12V
Q402
STEP DRIVE
V RF ENVELOP
RF SW P
CN702
CN701
CN903
V SYNC
5Vp-p
V
IC501 (66) REC/PB
6.5Vp-p
2V
IC101 (7) REC
5Vp-p
2V
IC101 (10) REC, IC501 (67) REC/PB
5Vp-p
2V
IC501 (1) REC/PB


5.2Vp-p
2V
IC005 ⑦ REC/PB
5Vp-p
2V
IC501 (68) REC/PB
MA-125 BOARD
(See Page 75, 83)
5.2Vp-p
6.5msec
IC501 (69) REC/PB
IC501 (1/2)
SERVO
CN904
16
19
(68) DRUM PG
(69) DRUM FG
IC402 (1/2)
CONSTANT VOLTAGE
SW 5V
REF 2.5V
IC101 (1/2)
CN907
FG 1
FG 2
AMP
WAVE SHAPER
(70) CAP FG
1Vp-p
1.5kHz
IC101 ⑱ REC/PB
IC401 (1/2)
DRUM D/A (74)
CAP STOP (71)
STEP
(24) STEP
5.2Vp-p
0.65msec
IC501 (70) REC/PB
TP501
⑦ REC CTL
(77) VD CTL
(67) PB CTL
(28) CTL INV
⑲ REC
⑨ RC IN
PB CTC
CTL INV
REC
RC IN
IC401 (1/2)
CAP D/A (73)
CAP V (59)
STEP PLS (35)
CAP RVS (72)
SW POSITION (62)
RV501
SW POSITION
V RF ENVELOP (60)
RF SW P ①
(66) V SYNC
Q401
Q402
STEP DRIVE
MTR 12V
5Vp-p
V
IC501 (66) REC/PB
5Vp-p
REC/PB
CN907
DV S
REF 2.5V
CAP VS
MD-40 BOARD (1/2)
(See Page 97)
IC004 (1/2)
DRUM MOTOR DRIVE
CN007
⑥ ETR
⑦ ET/DS
M1 ②
M2 ①
M3 ⑰
VM ⑯
CN001
MTR 12V
DRUM MOTOR (1/2)
(See Page 97)
M1
M2
M3
CAPSTAN MOTOR (1/2) (See Page 97)
IC001
CN002
C VS
⑫ VC
MTR 12V
SW 5V
LIMIT
C RVS
⑪ FRC
U ⑦
V ⑧
W ⑨
U(+) (27)
U(−) (28)
V(+) (25)
V(−) (26)
W(+) (23)
W(−) (24)
VH(+) ⑤
VH(−) ④
HALL DEVISE
CN702
V RF ENVELOP
CN701
RF SWP
V SYNC
VIDEO (YP-11)
CN903
RF SWP
VIDEO (RP-100)
5Vp-p
2V
IC501 ① REC/PB

## 3-5. SYSTEM CONTROL BLOCK DIAGRAM


5Vp-p
12.1MHz
IC501 (42) REC/PB
MD-40 BOARD
(See Page 97)
IC002 (1/2)
TAPE END DETECT
Q002 SUPPLY END SENSOR
Q001 TAKE-UP END SENSOR
UNSW 5V
Vcc
D001 TAPE TOP/END
END LED
LAMP Vcc
IC002 (1/2)
AMP
PH001 SUPPLY REEL SENSOR
PH002 TAKE-UP REEL SENSOR
S001 CASSETTE UP/DOWN
S002 REC PROOF
REC PRF
CN004
CN003
(See Page 99)
S1 ROTARY SWITCH
CAM ENCODER
5Vp-p
1.14sec
IC002 (1),(14) REC/PB
MA-125 BOARD
(See Page 75, 83)
CN904
CN401
Q501
MTR 12V
VIDEO (CV-26)
OSD Q VD
OSD JOG
IC501 (1/2)
SYSTEM CONTROL
VDD
A VDD
A V REF
S SENS
T SENS
END LED
S REEL
T REEL
C UP/DOWN
C ON/REC PRE
MODE 1
MODE 2
MODE 3
MODE 4
OSD Q VD
OSD JOG
CAM
LOAD
CW/CCW
XTAL
X501 12MHz
EXTAL
LINE 1
TV/VTR
V CUT
VIDEO
LI SEL
REC·P̄
AUDIO
NA PB
A MUTE
SP/LP
REC P̄(RP)
EDIT
Q VD
D505
Q ND ENABLE
VPB
REC
SERVO
HEAD SEL
AMS
RF SWP
REC
COSMO CS
SCLK
SI BUS
SO BUS
COSMO RESET
VIDEO(OSD) TUNER(VPS)
IC404
MOTOR DRIVE
Vcc 1
CAM(+)
LOAD(+)
COM
Vcc 2
MTR 12V
CN907
CN904
CN701
EDIT
Q VD
LP/SP
V PB
VIDEO (YP-11)
CN903
REC P̄(RP)
LP/SP
HEAD SEL
AMS
REC
VIDEO (RP-100)
CN502
COSMO CS
SCLK
SI
SO
COSMO RESET
TO TIMER/MODE CONTROL (MF-151)
MD-40 BOARD
(See Page 97)
CN007
CN004
LOAD(+)
COM
CN005
CN006
(See Page 99)
LOAD(+)
LOAD(-)
LODING MOTOR
(See Page 99)
CAM(+)
CAM(-)
CAM MOTOR
M

3-6. SYS
POR

| PIN No. |
|---|
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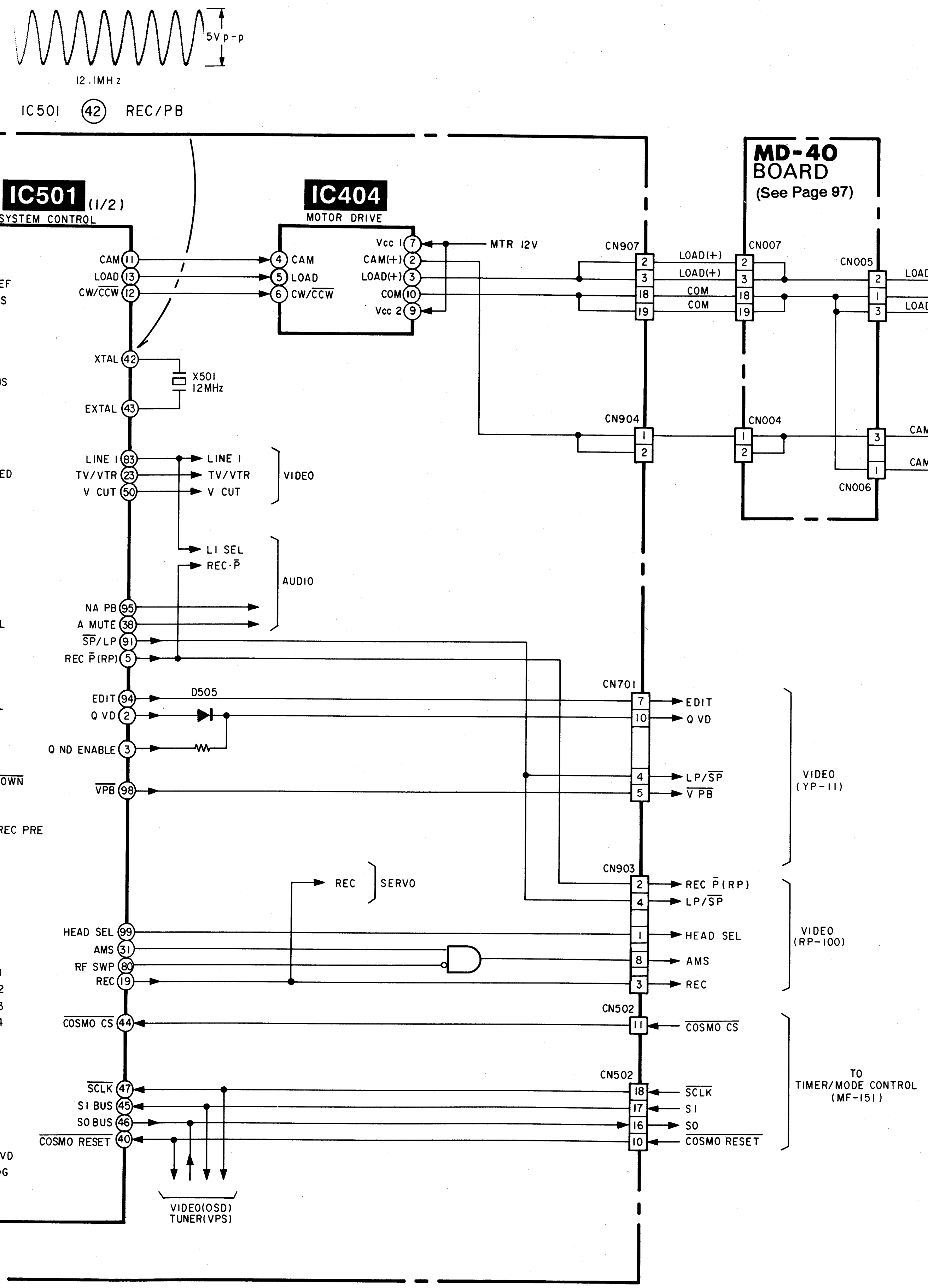
5Vp-p
12.1MHz
IC501 (42) REC/PB
IC501 (1/2)
SYSTEM CONTROL
IC404
MOTOR DRIVE
CAM (11)
LOAD (13)
CW/CCW (12)
XTAL (42)
EXTAL (43)
X501 12MHz
Vcc 1 (7)
CAM(+) (2)
LOAD(+) (3)
COM (10)
Vcc 2 (9)
(4) CAM
(5) LOAD
(6) CW/CCW
MTR 12V
CN907
LOAD(+)
LOAD(+)
COM
COM
MD-40 BOARD
(See Page 97)
CN007
CN005
LOAD(+)
LOAD(-)
(See Page 99)
M
LODING MOTOR
CN904
CN004
CAM(+)
CAM(-)
CN006
(See Page 99)
M
CAM MOTOR
LINE 1 (83)
TV/VTR (23)
V CUT (50)
LINE 1
TV/VTR
V CUT
VIDEO
LI SEL
REC·P
AUDIO
NA PB (95)
A MUTE (38)
SP/LP (91)
REC P (RP) (5)
EDIT (94)
Q VD (2)
D505
Q ND ENABLE (3)
VPB (98)
CN701
EDIT
Q VD
LP/SP
V PB
VIDEO (YP-11)
REC
SERVO
CN903
REC P (RP)
LP/SP
HEAD SEL
AMS
REC
VIDEO (RP-100)
HEAD SEL (99)
AMS (31)
RF SWP (80)
REC (19)
COSMO CS (44)
CN502
COSMO CS
CN502
SCLK (47)
SI BUS (45)
SO BUS (46)
COSMO RESET (40)
SCLK
SI
SO
COSMO RESET
TO TIMER/MODE CONTROL (MF-151)
VIDEO(OSD)
TUNER(VPS)
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## 3-6. SYSTEM CONTROL MICROCOMPUTER (CXP80624:IC501 on MA-125 Board) PORT FUNCTION DESCRIPTION

| PIN No. | PORT | I/O | SIGNAL | DESCRIPTION |
|---|---|---|---|---|
| 1 | PPO 13 | O | RF SWP | RF switching pulse |
| 2 | PPO 12 | O | Q VD | Quasi VD signal |
| 3 | PPO 11 | O | Q HD ENBL | Quasi HD enable signal |
| 4 | PPO 10 | O | $\overline{\text{AF REC·P}}$ | Not Used (OPEN) |
| 5 | PPO 9 | O | REC·$\overline{\text{P}}$ (RP) | REC:H |
| 6 | PPO 8 | O | —— | Not Used (OPEN) |
| 7 | RTO 7 | O | REC CTL | REC CTL signal |
| 8 | PC 6 | O | COLOR CNT | Not Used (OPEN) |
| 9 | PC 5 | O | RC IN | REC:REC CTL, others:HI-Z |
| 10 | PC 4 | O | —— | Not Used (OPEN) |
| 11 | PC 3 | O | CAM | Cam motor select signal |
| 12 | PC 2 | O | CW/CCW | Rotation direction set |
| 13 | PC 1 | O | LOAD | Loading motor select signal |
| 14 | PPO 16 | O | AF. SWP | Not Used (OPEN) |
| 15 | PJ 7 | O | $\overline{\text{STEREO}}$ | Not Used (OPEN) |
| 16 | PJ 6 | O | $\overline{\text{BILING}}$ | Not Used (OPEN) |
| 17 | PJ 5 | I | C ON/REC PRF | Cassette on/rec proof switch |
| 18 | PJ 4 | I | C UP/DOWN | Cassette up/down switch |
| 19 | PJ 3 | O | REC | REC:H |
| 20 | PJ 2 | O | V MUTE | Not Used (OPEN) |
| 21 | PJ 1 | I | T SENS | T end sensor |
| 22 | PJ 0 | I | S SENS | S end sensor |
| 23 | PD 7 | O | $\overline{\text{TV}}$/VTR | TV/VTR switch VTR:H |
| 24 | PD 6 | O | STEP | H when step is operation |
| 25 | PD 5 | O | —— | Not Used (OPEN) |
| 26 | PD 4 | O | —— | Not Used (OPEN) |
| 27 | PD 3 | O | NA REC $\overline{\text{P}}$ | Not Used (OPEN) |
| 28 | PD 2 | O | CTL INV | CTL inversion signal |
| 29 | PD 1 | O | MONI (R) | Not Used (OPEN) |
| 30 | PD 0 | O | MONI (L) | Not Used (OPEN) |
| 31 | PH 7 | O | AMS | AMS control (O.D) |
| 32 | PH 6 | O | $\overline{\text{HIFI MIX}}$ | Not Used (OPEN) (O.D) |
| 33 | PH 5 | O | —— | Not Used (OPEN) (O.D) |
| 34 | PH 4 | O | —— | Not Used (OPEN) (O.D) |
| 35 | PH 3 | O | STEP PLS | Step pulse output (O.D) |
| 36 | PH 2 | O | $\overline{\text{FULL ERASE}}$ | Not Used (OPEN) (O.D) |
| 37 | PH 1 | O | OSD JOG | Variable speed playback:Hiz (O.D) |
| 38 | PH 0 | O | A MUTE | MUTE:HiZ (O.D) |
| 39 | MP | O | —— | ~GND |
| 40 | $\overline{\text{RST}}$ | I/O | $\overline{\text{COSMO RESET}}$ | RESET:L |
| 41 | Vss | | | ~GND |
| 42 | XTAL | | | 12 MHz |
| 43 | EXTAL | | | 12 MHz |
| 44 | $\overline{\text{CSO}}$ | I | $\overline{\text{COSMO CS}}$ | |
| 45 | $\overline{\text{SIO}}$ | I | SI BUS | Serial data (TIMER → SYSCON) |
| 46 | $\overline{\text{SOO}}$ | O | SO BUS | Serial data (SYSCON → TIMER) |
| 47 | $\overline{\text{SCKO}}$ | I/O | $\overline{\text{SCLK}}$ | Serial data transfer clock |
| 48 | AN 11 | I | METER (L) | Not Used (~47KΩ ~GND) |
| 49 | AN 10 | I | METER (R) | Not Used (~47KΩ ~GND) |

| PIN No. | PORT | I/O | SIGNAL | DESCRIPTION |
|---|---|---|---|---|
| 50 | PF 5 | O | VCUT | V CUT:L |
| 51 | AN 8 | I | AF SW POSI | Not Used (~47kΩ ~GND) |
| 52 | AVss | | | ~GND |
| 53 | AVref | | | ~+5V |
| 54 | AVDD | | | ~+5V |
| 55 | PF 3 | I | MODE 4 | MD encorder input |
| 56 | PF 2 | I | MODE 3 | |
| 57 | PF 1 | I | MODE 2 | |
| 58 | PF 0 | I | MODE 1 | |
| 59 | AN 3 | I | CAP V | Capstan drive voltage feedback input for capstan constant voltage drive. |
| 60 | AN 2 | I | V RF ENVELOP | Video RF envelope signal for auto tracking |
| 61 | AN 1 | I | AF ENVELOP | Not Used (~47kΩ ~GND) |
| 62 | AN 0 | I | SW POSI | Switching position adjustment |
| 63 | PG 7 | I | S REEL | Supply reel FG signal |
| 64 | PG 6 | I | T REEL | Take-up reel FG signal |
| 65 | PG 5 | I | DEW | Not Used (~47kΩ ~+5V) |
| 66 | SYNCO | I | V SYNC | Vertical sync input for servo operation. etc |
| 67 | $\overline{\text{PBCTL}}$ | I | $\overline{\text{PB CTL}}$ | PB CTL signal for capstan phase servo |
| 68 | D PG | I | DRUM PG | DRUM PG signal for drum phase servo |
| 69 | D FG | I | DRUM FG | DRUM FG signal for drum speed servo |
| 70 | C FG | I | CAP FG | CAPSTAN FG signal for capstan speed servo |
| 71 | PE 7 | O | CAP STOP | Capstan stop:H |
| 72 | PE 6 | O | CAP REV | Capstan reverse:H |
| 73 | DAA 1 | O | CAP D/A | Capstan error output |
| 74 | DAA 0 | O | DRUM D/A | Drum error output |
| 75 | PE 3 | O | SKEW ON | Not Used (OPEN) |
| 76 | PE 2 | O | — | Not Used (OPEN) |
| 77 | $\overline{\text{EC}}$ | I | VD CTL | VD CTL signal for counter |
| 78 | PE 0 | I | TEST | Not Used (~47kΩ ~+5V) |
| 79 | SI 1 | I | SI 2 | Not Used (~47kΩ ~+5V) |
| 80 | SO 1 | O | SO 2 | Not Used (~47kΩ ~+5V) |
| 81 | SCK 1 | I/O | $\overline{\text{S CLK}}$ | Not Used (~47kΩ ~+5V) |
| 82 | INT 1 | I | INDEX CS | Not Used (~47kΩ ~+5V) |
| 83 | PI 3 | O | LINE 1 | LINE:H, TUNER:L |
| 84 | PI 2 | O | LINE 2 | Not Used (OPEN) |
| 85 | PI 1 | O | END LED | Tape end sensor LED drive signal |
| 86 | PCK | I | OSC 1 | Not Used (~47kΩ ~GND) |
| 87 | PK 0 | I | OSC 0 | Not Used (~47kΩ ~GND) |
| 88 | Vss | | | ~GND |
| 89 | VDD | | | ~+5V |
| 91 | PA 7 | O | LP/$\overline{\text{SP}}$ | LP:H, SP:L |
| 92 | PA 6 | O | — | Not Used (OPEN) |
| 93 | PA 5 | O | LP HEAD | Not Used (OPEN) |
| 94 | PA 4 | O | EDIT | EDIT:H |
| 95 | PA 3 | O | NA PB | Normal audio playback:H |
| 96 | PA 2 | O | $\overline{\text{AF PB}}$ | Not Used (OPEN) |
| 97 | PA 1 | O | $\overline{\text{JOG}}$ | Not Used (OPEN) |
| 98 | PA 0 | O | $\overline{\text{V PB}}$ | Video playback:L |
| 99 | PPO 15 | O | HEAD SEL | Video head select signal |
| 100 | PPO 14 | O | OSD Q VD | Quasi VD signal for OSD |

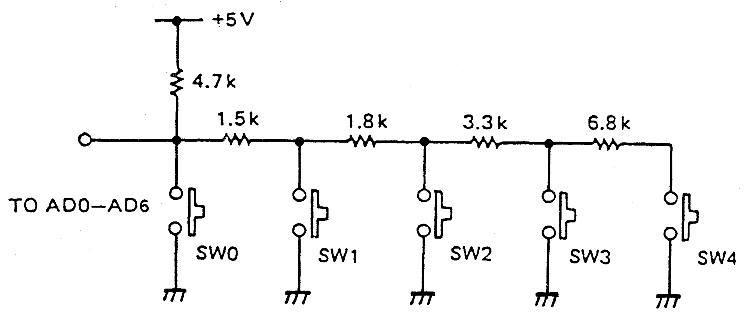
### 3-7. TIMER/MODE CONTROL MICROCOMPUTER (CXP50116:IC001 on MF-151 Board) PORT FUNCTION DESCRIPTION

| PIN No. | PORT | I/O | SIGNAL | DESCRIPTION |
|---|---|---|---|---|
| 1 | S4 | O | S0 | FIP segment signal |
| 2 | S5 | O | S1 | |
| 3 | S6 | O | S2 | |
| 4 | S7 | O | S3 | |
| 5 | S8 | O | S4 | |
| 6 | S9 | O | S5 | |
| 7 | S10 | O | S6 | |
| 8 | S11 | O | S7 | |
| 9 | S12 | O | S8 | |
| 10 | S13 | O | S9 | |
| 11 | S14 | O | S10 | |
| 12 | S15 | O | S11 | |
| 13 | S16 | O | S12 | |
| 14 | S17 | O | S13 | |
| 15 | S18 | O | S14 | |
| 16 | S19 | O | S15 | |
| 17 | S20 | O | S16 | |
| 18 | S21 | O | S17 | Not Used |
| 19 | S22 | O | S18 | |
| 20 | S23 | O | S19 | |
| 21 | T7 | O | T7 | |
| 22 | T6 | O | T6 | FIP grid signal |
| 23 | T5 | O | T5 | |
| 24 | T4 | O | T4 | |
| 25 | T3 | O | T3 | |
| 26 | T2 | O | T2 | |
| 27 | T1 | O | T1 | |
| 28 | T0 | O | T0 | |
| 29 | INT | I | | Interruption from externals (Not Used) |
| 30 | TX | O | TX | Backup clock output |
| 31 | TEX | I | TEX | Backup clock input (32.768 kHz) |
| 32 | $\overline{\text{RESET}}$ | I | $\overline{\text{RESET}}$ | Reset input |
| 33 | | | | |
| 34 | VDD | – | VDD | Positive power supply terminal |
| 35 | AD 0 | I | AD 0 | Key input reading A/D (including shuttle switch) |
| 36 | AD 1 | I | AD 1 | |
| 37 | AD 2 | I | AD 2 | |
| 38 | AD 3 | I | AD 3 | |
| 39 | AD 4 | I | AD 4 | |
| 40 | AD 5 | I | AD 5 | |
| 41 | AD 6 | I | AD 6 | |
| 42 | AD 7 | I | AFT | TUNER AFT SIGNAL |
| 43 | $\overline{\text{EC}}$ | I | | Event count input (Not used) |
| 44 | $\overline{\text{SC}}$ | O | $\overline{\text{SCLK}}$ | Serial bus clock output |
| 45 | SO | O | SO (from TT) | Serial bus SOUT |
| 46 | SI | I | SI (to TT) | Serial bus SIN |
| 47 | PA 0 | I | FWD/RVS | SHUTTLE DIRECTION |
| 48 | PA 1 | I/O | MEM DATA | EEPROM DATA SIGNAL |
| 49 | PA 2 | O | RF CTRL | RF MOD ON/OFF |

| PIN No. | PORT | I/O | SIGNAL | DESCRIPTION |
|---|---|---|---|---|
| 50 | PA 3 | O | $\overline{\text{VPS CS}}$ | VPS chip select signal |
| 51 | PF 0 | O | $\overline{\text{VPS RESET}}$ | VPS RESET signal |
| 52 | PF 1 | O | $\overline{\text{COSMO CS}}$ | COSMO CS signal |
| 53 | PF 2 | O | $\overline{\text{COSMO RESET}}$ | COSMO RESET signal |
| 54 | PF 3 | O | $\overline{\text{CG CS}}$ | CG CS signal |
| 55 | PE 0 | O | PLL ENABLE | FS tuner enable output |
| 56 | PE 1 | O | PLL CLOCK | FS tuner clock output |
| 57 | PE 2 | O | PLL DATA | FS tuner data output |
| 58 | PE 3 | O | BAND SEL | Tuner band select (Not Used) |
| 59 | PY 0 | O | TV SYSTEM | TV SYSTEM select |
| 60 | PY 1 | O | BUZZER | Buzzer signal |
| 61 | PY 2 | I | POWER FAIL | Service interruption detection |
| 62 | PY 3 | I | SIRCS IN | Remote control input |
| 63 | PD 0 | I | MESECAM | NOT USED |
| 64 | PD 1 | I/O | SECAM/$\overline{\text{PAL}}$ | NOT USED |
| 65 | PD 2 | I | $\overline{\text{HDET}}$ | VIDEO H sync DETECT input |
| 66 | PD 3 | I | C+DET | C+ DETECT input |
| 67 | PC 0 | O | C+ON | C+ ON/OFF |
| 68 | PC 1 | O | OUT SEL | AV output select |
| 69 | PC 2 | O | TUNER SEL | TUNER select |
| 70 | PC 3 | O | RGB CTRL | RGB control |
| 71 | Vss | – | Vss | GND |
| 72 | XTAL | O | XTAL | Clock output |
| 73 |  |  |  |  |
| 74 | EXTAL | I | EXTAL | Clock input (4.194304 MHz) |
| 75 | VREF | I | VREF | Reference voltage for resetting circuit (to VDD) |
| 76 | VFDP | I | VFDP | Power supply for FIP |
| 77 | PH 0 | O | AV CTRL | AV control |
| 78 | PH 1 | O | POWER CTRL | POWER control signal |
| 79 | PH 2 | O | MEM CLK | EEPROM clock signal |
| 80 | PH 3 | O | MEM CS | EEPROM CS signal |

## ● A/D PORT ALLOCATION

- The A/D ports are allocated as shown below.



| SW<br>AD | PIN No. | SW0<br>0.00[V] | SW1<br>1.21[V] | SW2<br>2.06[V] | SW3<br>2.92[V] | SW4<br>3.70[V] |
|---|---|---|---|---|---|---|
| AD 0 | 35 | RING 0 | TEST 1 | TEST 2 ( × 120) |  |  |
| AD 1 | 36 | RING 1 | CP |  | UB | VP |
| AD 2 | 37 | RING 2 | PAUSE | H.S. REWIND |  |  |
| AD 3 | 38 | TIMER REC | REC MODE | TV/VTR | VPS | A. INSERT |
| AD 4 | 39 | REC | AUTO/MANUAL | TRACKING (+) | PROGRAM (+) |  |
| AD 5 | 40 | QUICK TIMER | INPUT SELECT | TRACKING (–) | PROGRAM (–) | EDIT |
| AD 6 | 41 | STOP | PLAY | POWER | EJECT |  |

- KEY input signals pass through the A/D ports as shown above.
- Chattering-cancel time is 30 msec. KEY input is assumed when there are two input signals of the same voltage within 30 msec.
- Discriminate the model (SLV-325, 325VP, 325UB, 325EI or 325CP) by using the AD1 port. However, when discriminate SLV-325 or 325EI, set the switch to OFF position.

## 3-8. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

| Signal Name | Pin No. | I/O | STOP/ FF/REW | TAPE LOADING | TAPE UN-LOADING | PB | PB• PAUSE | SLOW | × 2 | CUE | REVIEW | REC | REC• PAUSE | −×1 | −×2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $\overline{\text{V PB}}$ | MA-125 BOARD IC501 (98) | O | H | H | H | L | L | L | L | L | L | H | H | L | L |
| HEAD SEL | MA-125 BOARD IC501 (99) | O | L | L | L | L | H | *1 | H | L | L | H | H | L | H |
| RF SW P | MA-125 BOARD IC501 ① | O | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 |
| Q VD | MA-125 BOARD IC501 ② | O | L | L | L | L | *4 | *4 | *4 | *4 | *4 | L | L | *4 | *4 |
| EDIT | MA-125 BOARD IC501 (94) | O | L | L | L | *5 | *5 | *5 | *5 | *5 | *5 | *5 | L | *5 | *5 |
| AMS | MA-125 BOARD IC501 ㉛ | O | L | L | L | L | L | *6 | L | *7 | *7 | L | L | *7 | *7 |
| $\overline{\text{SP}}$/LP | MA-125 BOARD IC501 (91) | O | *8 | *8 | *8 | *9 | *9 | *9 | *9 | *9 | *9 | *8 | *8 | *9 | *9 |
| REC•$\overline{\text{P}}$ | MA-125 BOARD IC501 ⑤ | O | L | L | L | L | L | L | L | L | L | H | L | L | L |
| REC | MA-125 BOARD IC501 ⑲ | O | L | L | L | L | L | L | L | L | L | H | H | L | L |
| V SYNC | MA-125 BOARD IC501 (66) | I | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 | *10 |

*1. "H" when the tape stops, and "L" when it runs (for approx. 40 msec).
*2. Synchronized with drum rotation. 25 Hz 50% duty pulse.
*4. V-cycle "H" pulse.
*5. Normally "L". "H" during EDIT mode.
*6. HI-Z when the tape runs reverse during SP mode "L" the other conditions.
*7. HI-Z (2.5V) during SP mode, or "L" during LP mode.
*8. By SP/LP selector, "L" during SP mode, or "H" during LP mode.
*9. By the mode on the recorded tape, "L" when it is SP mode, or "H" when "LP" mode.
*10. Vertical sync signal (positive polarity).

## 3-9. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

| Signal Name | Pin No. | I/O | STOP | FF | REW | TAPE LOADING | TAPE UN-LOADING | PB | PB• PAUSE | SLOW | ×2 | CUE | REVIEW | REC | REC• PAUSE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RC IN *1 | MA-125 BOARD IC501 ⑨ | O | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | Hiz | *1 | Hiz |
| CAP STOP | MA-125 BOARD IC501 (71) | O | H | L | L | L | L | L | H | H | L | L | L | L | H |
| $\overline{\text{STEP PLS}}$ | MA-125 BOARD IC501 ㉟ | O | H | H | H | H | H | H | H | *2 | H | H | H | H | H |
| CAP V *3 | MA-125 BOARD IC501 (59) | I |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SW POSITION *4 | MA-125 BOARD IC501 (62) | I |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\overline{\text{PB CTL}}$ | MA-125 BOARD IC501 (67) | I | H | *6 | *6 |  |  | *1 | H/L | *2 | *6 | *6 | *6 | *1 | L |
| VD CTL | MA-125 BOARD IC501 (77) | I | H | *6 | *6 |  |  | *1 | H/L | *2 | *6 | *6 | *6 | *1 | L |
| DRUM PG | MA-125 BOARD IC501 (68) | I | L | L | L | *5 | *5 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 |
| DRUM FG | MA-125 BOARD IC501 (69) | I | L | L | L | *5 | *5 | *8 | *8 | *8 | *8 | *8 | *8 | *8 | *8 |
| CAP FG | MA-125 BOARD IC501 (70) | I | H/L | *6 | *6 | *5 | *5 | *6 | H/L | *9 | *6 | *6 | *6 | *6 | H/L |
| CAP RVS | MA-125 BOARD IC501 (72) | O | H | L | H | L | H | L | L | *2 | L | L | H | L | L |
| CAP DA *14 | MA-125 BOARD IC501 (73) | O | *11 | L | L | *11 | *11 | 12 | *11 | *11 | *12 | *12 | *12 | *12 | *11 |
| DRUM DA *14 | MA-125 BOARD IC501 (74) | O | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 | *13 |
| REC•$\overline{\text{P}}$ | MA-125 BOARD IC501 ⑤ | O | L | L | L | L | L | L | L | L | L | L | L | H | L |
| STEP | MA-125 BOARD IC501 ㉔ | O | L | L | L | L | L | L | L | *15 | L | L | L | L | L |

*1. 25 Hz pulse. (Modified Rec CTL)
*2. "L" pulse when the tape runs.
*3. Input terminal for capstan constant-voltage drive.
Used in the FF/REW mode and for cassette loading/unloading.
*4. Input terminal for switching position adjustment.
*5. Indefinite cycle pulse.
*6. Cycle pulse proportional to a tape speed.
*7. 25 Hz "H" pulse.
*8. 150 Hz pulse.
*9. Tape run time pulse.
*10. V-cycle "L" pulse.
*11. "H" or "L" pulse in a cycle of approx. 2 msec.
*12. "H" or "L" pulse in a cycle of approx. 1.5 msec.
*13. "H" or "L" pulse in a cycle of approx. 3 msec.
*14. 3-value output of "H", "L" and HI-Z (2.5V).
*15. "H" pulse when the tape runs.

## 3-10. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

| Signal Name | Pin No. | I/O | HI-SPEED REW | EJECTED | CASSETTE LOADING | CASSETTE UN-LOADING | TAPE LOADING | TAPE UN-LOADING | STOP | FF | REW | PB | PB• PAUSE | SLOW | ×2 | CUE | REVIEW | REC | REC PAUSE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CAM *1 | MA-125 BOARD IC501 ⑪ | O | L | L | L | L | H | H | L | L | L | L | L | L | L | L | L | L | L |
| LOAD | MA-125 BOARD IC501 ⑬ | O | L | L | H | H | L | L | L | L | L | L | L | L | L | L | L | L | L |
| CW/$\overline{\text{CCW}}$ | MA-125 BOARD IC501 ⑫ | O | | | H | L | H | L | | | | | | | | | | | |
| MODE 1 | MA-125 BOARD IC501 (58) | I | H | L | L | L | H | H | L | H | H | H | L | L | H | H | H | H | H |
| MODE 2 | MA-125 BOARD IC501 (57) | I | L | H | H | H | H | H | L | L | L | L | H | H | L | L | L | L | H |
| MODE 3 | MA-125 BOARD IC501 (56) | I | H | H | H | H | L | L | L | L | L | H | H | H | H | H | L | H | H |
| MODE 4 | MA-125 BOARD IC501 (55) | I | H | H | H | H | H | H | L | H | H | L | L | L | L | L | L | L | L |
| REC PRF | MA-125 BOARD IC501 ⑰ | I | *2 | L | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 |
| C-UP/$\overline{\text{DOWN}}$ | MA-125 BOARD IC501 ⑱ | I | L | H | H→L | H→L | L | L | L | L | L | L | L | L | L | L | L | L | L |
| T REEL | MA-125 BOARD IC501 (64) | I | *3 | H/L | H/L | H/L | H/L | H/L | H/L | *3 | *3 | *3 | H/L | *3 | *3 | *3 | *3 | *3 | H/L |
| S REEL | MA-125 BOARD IC501 (63) | I | *3 | H/L | H/L | H/L | *3 | *3 | H/L | *3 | *3 | *3 | H/L | *3 | *3 | *3 | *3 | *3 | H/L |
| END LED | MA-125 BOARD IC501 (85) | O | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 | *4 |
| CAP V | MA-125 BOARD IC501 (59) | I | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 | *6 |
| CAP STOP | MA-125 BOARD IC501 (71) | O | L | H | | | L | L | H | L | L | L | H | H | L | L | L | L | H |
| CAP RVS | MA-125 BOARD IC501 (72) | O | H | H | | | L | H | H/L | L | H | L | L | L | L | L | H | L | L |
| CAP DA *8 | MA-125 BOARD IC501 (73) | O | | | | | | | | | | | | | | | | | |
| T SENS | MA-125 BOARD IC501 ㉑ | I | *7 | *4 | *4 | *4 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 |
| S SENS | MA-125 BOARD IC501 ㉒ | I | *7 | *4 | *4 | *4 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 | *7 |

*1. "H" when progressing to the MECHA mode.
*2. "L" when a cassette erasure preventive finger is bent, and "H" when not bent.
*3. Cycle pulse proportional to a reel speed.
*4. "H" pulse in a cycle of approx. 2 msec.
*6. Input terminal for capstan constant-voltage drive.
Used in the FF/REW mode and for cassette loading/unloading.
*7. Normally "L", "H" pulse in a cycle of 2 msec. when tape top or tape end is detected.
*8. 3-value output of "H", "L" and HI-Z (2.5V).

### 3-11. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

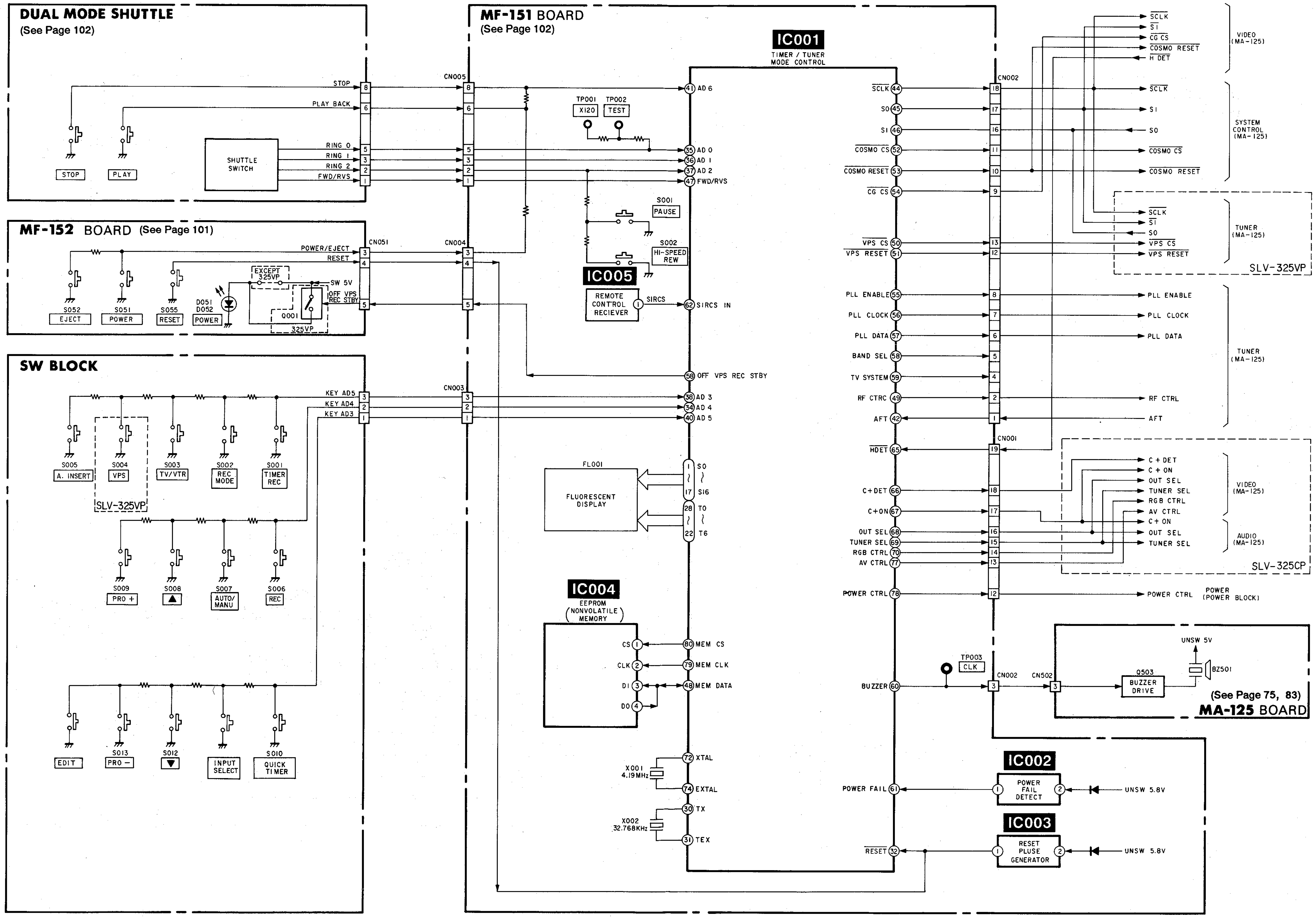
| Signal Name | Pin No. | I/O | I/O LEVEL |
|---|---|---|---|
| $\overline{\text{COSMO RESET}}$ | MA-125 BOARD IC501 ㊵ | I | Normally "H". Set to "L" when a power failure is detected or power is restored. |
| $\overline{\text{COSMO CS}}$ | MA-125 BOARD IC501 ㊹ | I | Chip select signal from the timer microcomputer (MF-151 board IC001). V-cycle "L" pulse. |
| SI BUS | MA-125 BOARD IC501 ㊺ | I | Serial communication data from the timer microcomputer. V-cycle "L" pulse. |
| SO BUS | MA-125 BOARD IC501 ㊻ | O | Serial communication data to the timer microcomputer. V-cycle "L" pulse. |
| $\overline{\text{S CLK}}$ | MA-125 BOARD IC501 ㊼ | O | Serial communication clock to the timer microcomputer. V-cycle "L" pulse. |

### 3-12. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

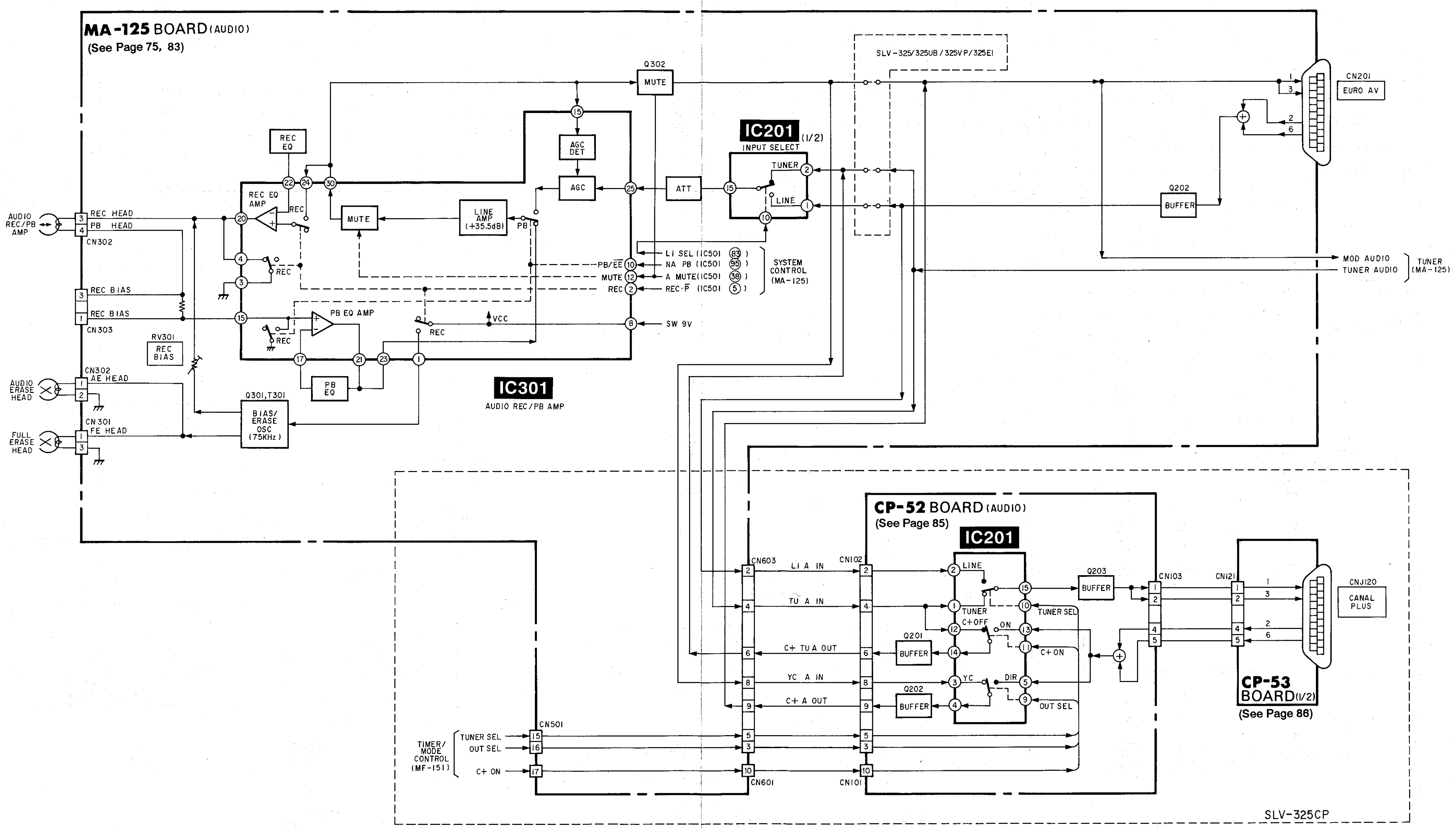
| Signal Name | Pin No. | I/O | STOP/ FF/REW | TAPE LOADING | TAPE UN-LOADING | PB | PB• PAUSE | SLOW | ×2 | CUE | REVIEW | REC | REC PAUSE | −×1 | −×2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NA•PB | MA-125 BOARD IC501 (95) | O | L | L | L | H | H | H | H | H | H | L | L | H | H |
| A MUTE | MA-125 BOARD IC501 ㊳ | O | L | L | L | *1 | H | H | H | H | H | L | L | H | H |
| $\overline{\text{SP}}$/LP | MA-125 BOARD IC501 (91) | O | *2 | *2 | *2 | *3 | *3 | *3 | *3 | *3 | *3 | *2 | *2 | *3 | *3 |
| REC•$\overline{\text{P}}$ | MA-125 BOARD IC501 ⑤ | O | L | L | L | L | L | L | L | L | L | H | L | L | L |

*1. "H" when CTL signal is not played back.
*2. By SP/LP selector, "L" during SP mode, or "H" during LP mode.
*3. By the mode on the recorded tape, "L" when it is SP mode, or "H" when "LP" mode.

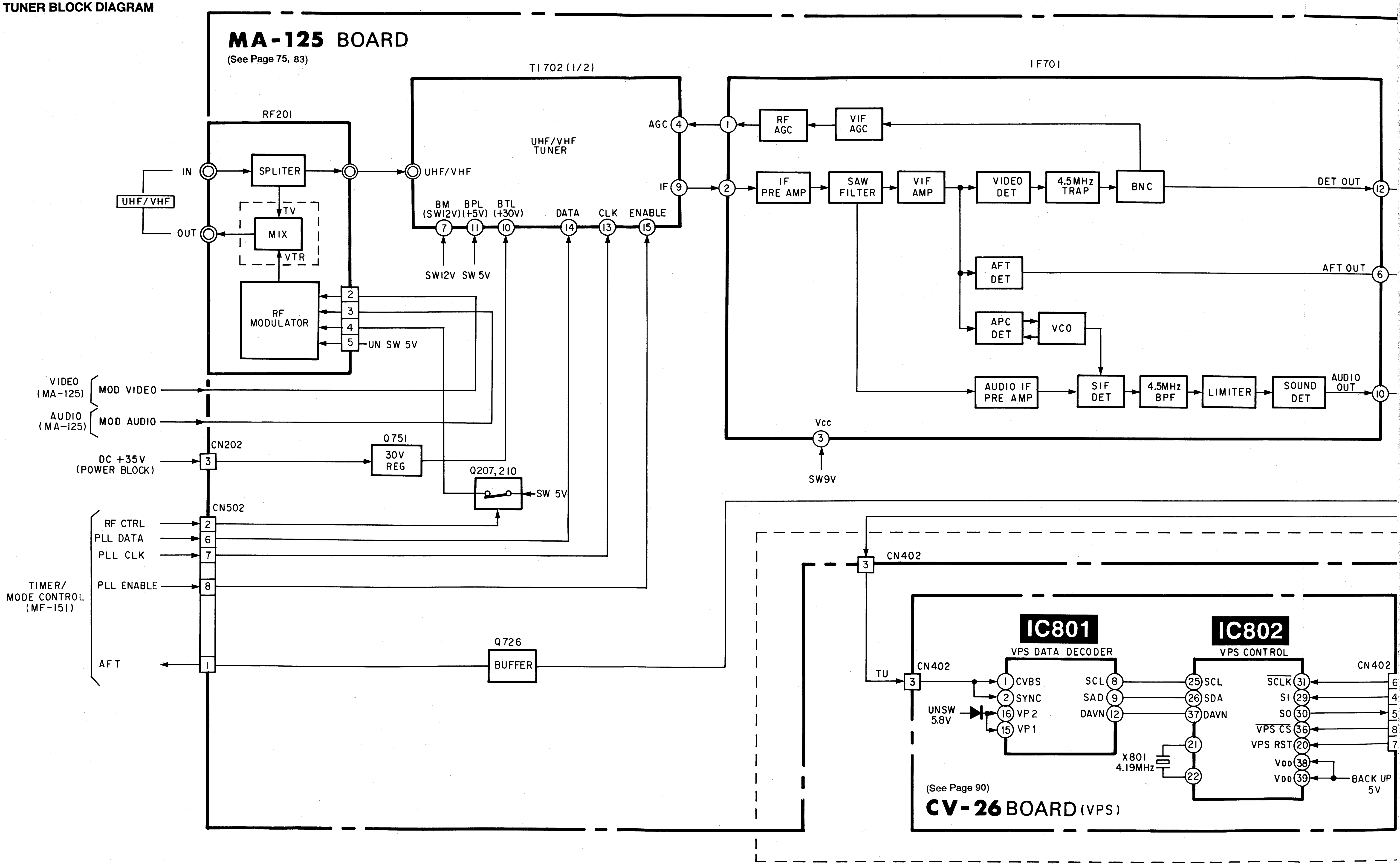
## 3-13. TIMER, MODE CONTROL BLOCK DIAGRAM

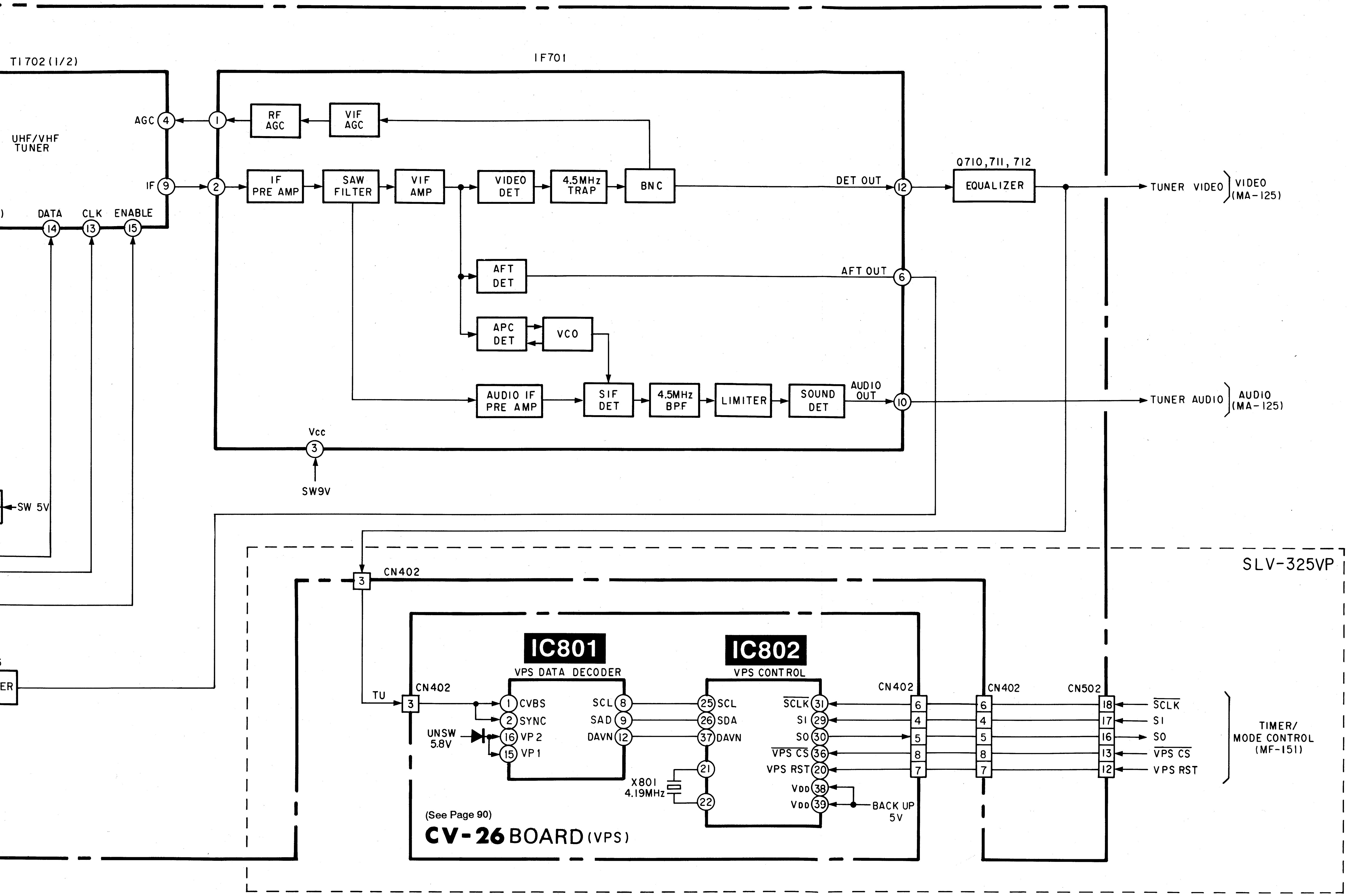

DUAL MODE SHUTTLE
(See Page 102)
STOP
PLAY BACK
RING 0
RING 1
RING 2
FWD/RVS
SHUTTLE SWITCH
STOP
PLAY
MF-152 BOARD (See Page 101)
CN051
POWER/EJECT
RESET
EXCEPT 325VP
SW 5V
OFF VPS REC STBY
D051 D052
Q001
325VP
S052 EJECT
S051 POWER
S055 RESET
POWER
SW BLOCK
KEY AD5
KEY AD4
KEY AD3
S005 A. INSERT
S004 VPS
SLV-325VP
S003 TV/VTR
S002 REC MODE
S001 TIMER REC
S009 PRO +
S008 ▲
S007 AUTO/MANU
S006 REC
EDIT
S013 PRO −
S012 ▼
INPUT SELECT
S010 QUICK TIMER
MF-151 BOARD
(See Page 102)
CN005
CN004
CN003
IC001
TIMER / TUNER MODE CONTROL
TP001 X120
TP002 TEST
S001 PAUSE
S002 HI-SPEED REW
IC005
REMOTE CONTROL RECIEVER
SIRCS
41 AD 6
35 AD 0
36 AD 1
37 AD 2
47 FWD/RVS
62 SIRCS IN
58 OFF VPS REC STBY
38 AD 3
34 AD 4
40 AD 5
FL001
FLUORESCENT DISPLAY
1 S0
17 S16
28 T0
22 T6
IC004
EEPROM (NONVOLATILE MEMORY)
CS 1
CLK 2
DI 3
DO 4
80 MEM CS
79 MEM CLK
48 MEM DATA
X001 4.19MHz
72 XTAL
74 EXTAL
X002 32.768KHz
30 TX
31 TEX
SCLK 44
SO 45
SI 46
COSMO CS 52
COSMO RESET 53
CG CS 54
VPS CS 50
VPS RESET 51
PLL ENABLE 55
PLL CLOCK 56
PLL DATA 57
BAND SEL 58
TV SYSTEM 59
RF CTRC 49
AFT 42
HDET 65
C+DET 66
C+ON 67
OUT SEL 68
TUNER SEL 69
RGB CTRL 70
AV CTRL 77
POWER CTRL 78
BUZZER 60
POWER FAIL 61
RESET 32
CN002
CN001
SCLK
SI
CG CS
COSMO RESET
H DET
VIDEO (MA-125)
SCLK
SI
SO
COSMO CS
COSMO RESET
SYSTEM CONTROL (MA-125)
SCLK
SI
SO
VPS CS
VPS RESET
TUNER (MA-125)
SLV-325VP
PLL ENABLE
PLL CLOCK
PLL DATA
TUNER (MA-125)
RF CTRL
AFT
C + DET
C + ON
OUT SEL
TUNER SEL
RGB CTRL
AV CTRL
VIDEO (MA-125)
C + ON
OUT SEL
TUNER SEL
AUDIO (MA-125)
SLV-325CP
POWER CTRL
POWER (POWER BLOCK)
TP003 CLK
CN002
CN502
UNSW 5V
Q503 BUZZER DRIVE
BZ501
(See Page 75, 83)
MA-125 BOARD
IC002
POWER FAIL DETECT
UNSW 5.8V
IC003
RESET PLUSE GENERATOR
UNSW 5.8V

## 3-14. AUDIO BLOCK DIAGRAM

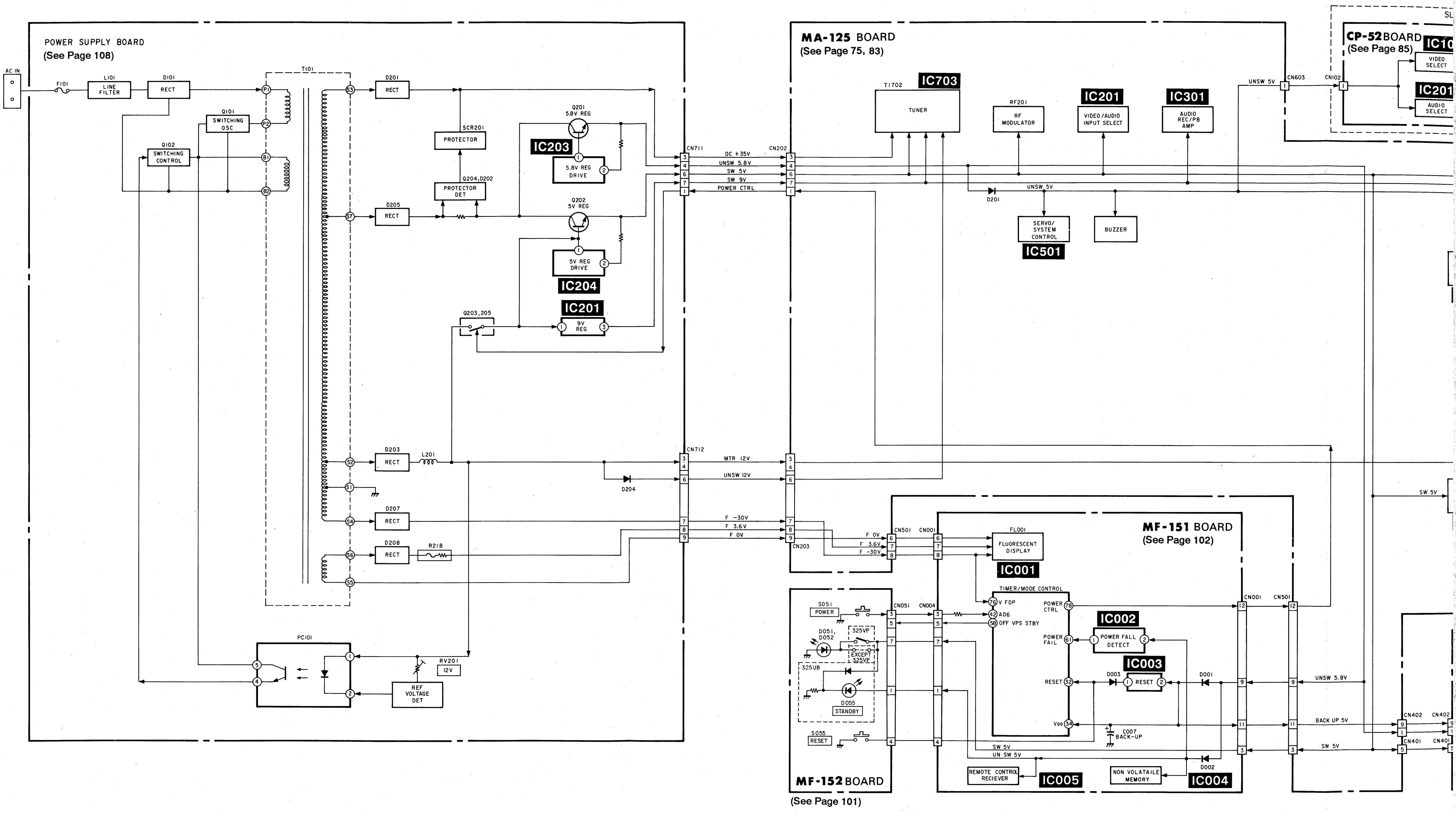

MA-125 BOARD (AUDIO)
(See Page 75, 83)
AUDIO REC/PB AMP
REC HEAD
PB HEAD
CN302
REC BIAS
REC BIAS
CN303
RV301
REC BIAS
AUDIO ERASE HEAD
CN302
AE HEAD
CN301
FE HEAD
FULL ERASE HEAD
Q301,T301
BIAS/ERASE OSC (75KHz)
REC EQ
REC EQ AMP
REC
MUTE
LINE AMP (+35.5dB)
PB
Q302
MUTE
AGC DET
AGC
PB EQ AMP
REC
VCC
REC
PB EQ
IC301
AUDIO REC/PB AMP
SW 9V
ATT
IC201 (1/2)
INPUT SELECT
TUNER
LINE
LI SEL (IC501 83)
NA PB (IC501 95)
A MUTE (IC501 38)
REC·P (IC501 5)
PB/EE
MUTE
REC
SYSTEM CONTROL (MA-125)
SLV-325/325UB/325VP/325EI
Q202
BUFFER
CN201
EURO AV
MOD AUDIO
TUNER AUDIO
TUNER (MA-125)
CP-52 BOARD (AUDIO)
(See Page 85)
IC201
CN603
CN102
LI A IN
TU A IN
C+ TU A OUT
YC A IN
C+ A OUT
LINE
TUNER
C+OFF
ON
TUNER SEL
C+ ON
YC
DIR
OUT SEL
Q201
BUFFER
Q202
BUFFER
Q203
BUFFER
CN103
CN121
CNJ120
CANAL PLUS
CP-53 BOARD (1/2)
(See Page 86)
CN501
TIMER/MODE CONTROL (MF-151)
TUNER SEL
OUT SEL
C+ ON
CN601
CN101
SLV-325CP

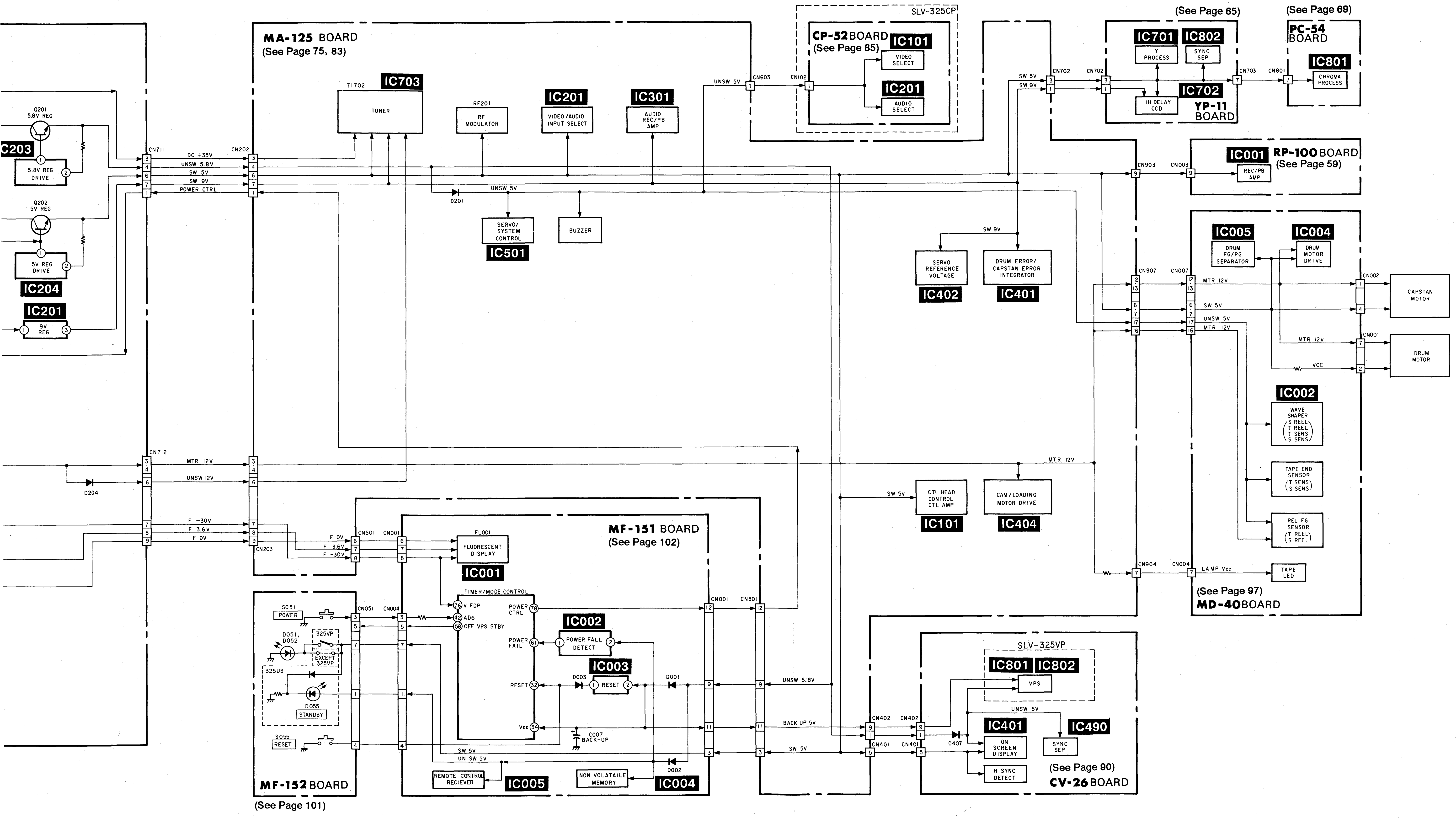
## 3-15. TUNER BLOCK DIAGRAM


MA-125 BOARD
(See Page 75, 83)
RF201
TI702 (1/2)
IF701
UHF/VHF
IN
OUT
SPLITER
MIX
TV
VTR
RF MODULATOR
UN SW 5V
UHF/VHF
UHF/VHF TUNER
AGC 4
IF 9
BM (SW12V)
BPL (+5V)
BTL (+30V)
DATA
CLK
ENABLE
7
11
10
14
13
15
SW12V
SW 5V
RF AGC
VIF AGC
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
4.5MHz TRAP
BNC
DET OUT
AFT DET
AFT OUT
APC DET
VCO
AUDIO IF PRE AMP
SIF DET
4.5MHz BPF
LIMITER
SOUND DET
AUDIO OUT
Vcc
SW9V
VIDEO (MA-125)
AUDIO (MA-125)
MOD VIDEO
MOD AUDIO
CN202
DC +35V (POWER BLOCK)
Q751
30V REG
Q207, 210
SW 5V
CN502
TIMER/ MODE CONTROL (MF-151)
RF CTRL
PLL DATA
PLL CLK
PLL ENABLE
AFT
Q726
BUFFER
CN402
TU
IC801
VPS DATA DECODER
CVBS
SYNC
VP 2
VP 1
SCL
SAD
DAVN
UNSW 5.8V
X801 4.19MHz
IC802
VPS CONTROL
SCL
SDA
DAVN
SCLK
SI
SO
VPS CS
VPS RST
VDD
VDD
BACK UP 5V
(See Page 90)
CV-26 BOARD (VPS)

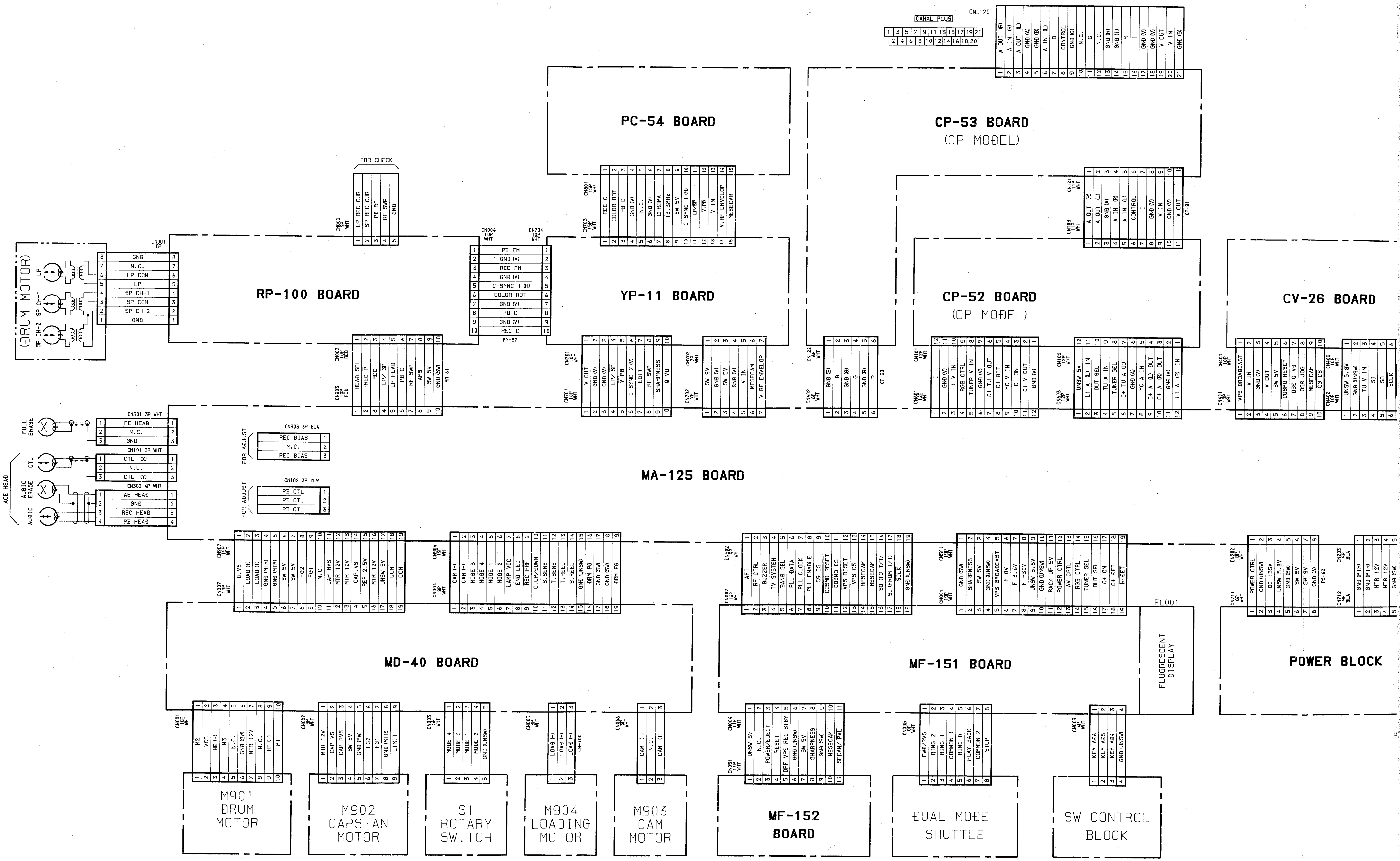

TI702(1/2)
UHF/VHF TUNER
AGC ④
IF ⑨
DATA ⑭
CLK ⑬
ENABLE ⑮
SW 5V
ER
IF701
①
RF AGC
VIF AGC
②
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
4.5MHz TRAP
BNC
DET OUT ⑫
AFT DET
AFT OUT ⑥
APC DET
VCO
AUDIO IF PRE AMP
SIF DET
4.5MHz BPF
LIMITER
SOUND DET
AUDIO OUT ⑩
Vcc ③
SW9V
Q710, 711, 712
EQUALIZER
TUNER VIDEO
VIDEO (MA-125)
TUNER AUDIO
AUDIO (MA-125)
SLV-325VP
CN402
3
TU
IC801
VPS DATA DECODER
① CVBS
② SYNC
⑯ VP2
⑮ VP1
UNSW 5.8V
SCL ⑧
SAD ⑨
DAVN ⑫
IC802
VPS CONTROL
㉕ SCL
㉖ SDA
㊲ DAVN
㉑
㉒
X801 4.19MHz
SCLK ㉛
SI ㉙
SO ㉚
VPS CS ㊱
VPS RST ⑳
VDD ㊳
VDD ㊴
BACK UP 5V
CN402
6
4
5
8
7
CN502
18
17
16
13
12
SCLK
SI
SO
VPS CS
VPS RST
TIMER/ MODE CONTROL (MF-151)
(See Page 90)
CV-26 BOARD (VPS)

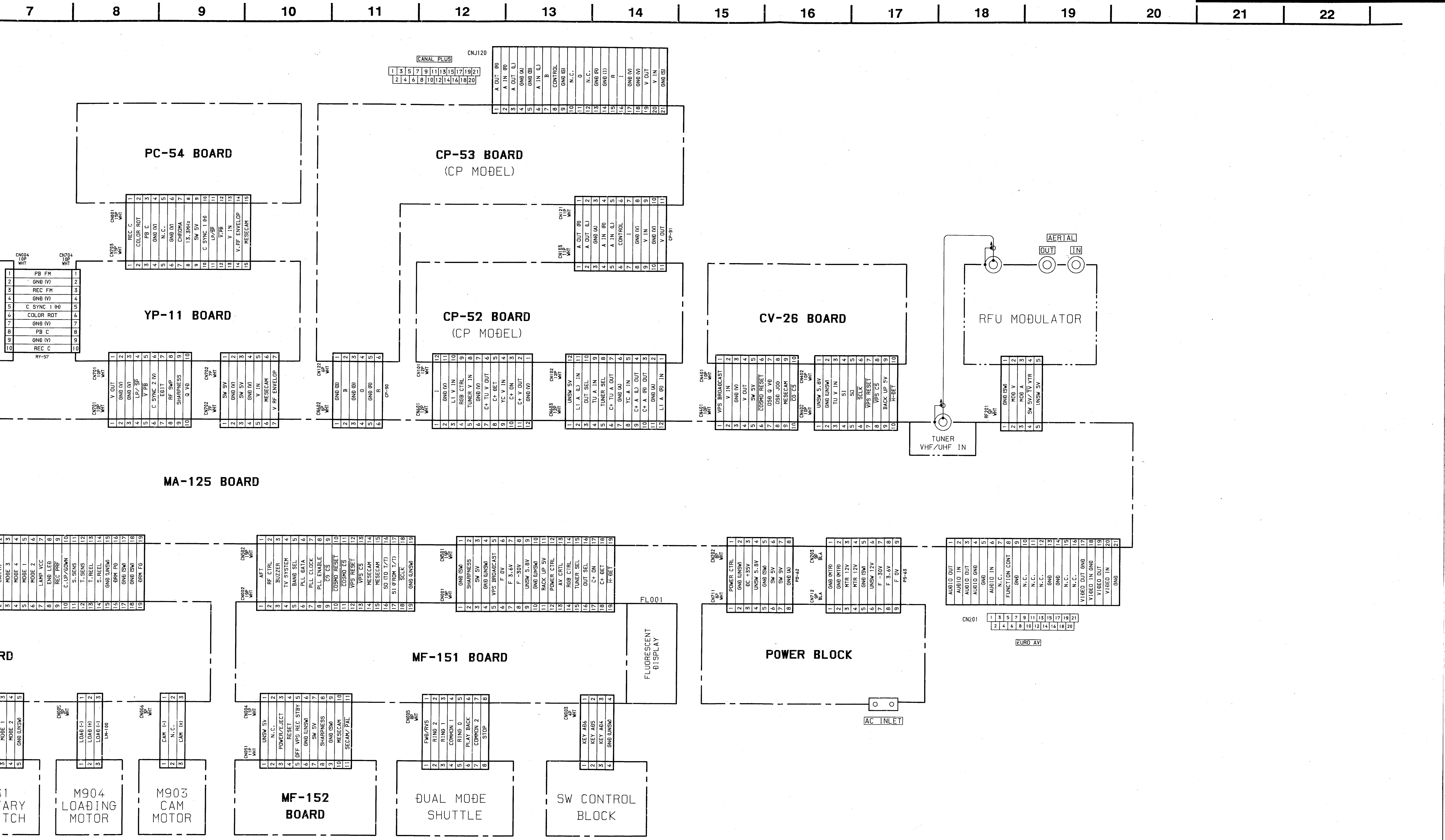
## 3-16. POWER BLOCK DIAGRAM


POWER SUPPLY BOARD
(See Page 108)
AC IN
F101
L101
LINE FILTER
D101
RECT
Q101
SWITCHING OSC
Q102
SWITCHING CONTROL
T101
P1
P2
B1
B2
S3
S7
S2
S1
S4
S6
S5
D201
RECT
D205
RECT
SCR201
PROTECTOR
Q204,D202
PROTECTOR DET
Q201
5.8V REG
IC203
5.8V REG DRIVE
Q202
5V REG
5V REG DRIVE
IC204
IC201
9V REG
Q203,205
D203
RECT
L201
D204
D207
RECT
D208
RECT
R218
PC101
RV201
12V
REF VOLTAGE DET
CN711
DC +35V
UNSW 5.8V
SW 5V
SW 9V
POWER CTRL
CN202
CN712
MTR 12V
UNSW 12V
F −30V
F 3.6V
F 0V
CN203
MA-125 BOARD
(See Page 75, 83)
T1702
IC703
TUNER
RF201
RF MODULATOR
IC201
VIDEO/AUDIO INPUT SELECT
IC301
AUDIO REC/PB AMP
UNSW 5V
D201
SERVO/SYSTEM CONTROL
IC501
BUZZER
CN603
CN102
CP-52 BOARD
(See Page 85)
VIDEO SELECT
IC201
AUDIO SELECT
SW 5V
MF-151 BOARD
(See Page 102)
CN501
CN001
F 0V
F 3.6V
F −30V
FL001
FLUORESCENT DISPLAY
IC001
TIMER/MODE CONTROL
V FDP
AD6
OFF VPS STBY
POWER CTRL
POWER FAIL
IC002
POWER FALL DETECT
IC003
RESET
D003
D001
VDD
C007
BACK-UP
SW 5V
UN SW 5V
D002
REMOTE CONTROL RECIEVER
IC005
NON VOLATAILE MEMORY
IC004
CN001
CN501
UNSW 5.8V
BACK UP 5V
SW 5V
CN402
CN401
MF-152 BOARD
(See Page 101)
CN051
CN004
S051
POWER
D051, D052
325VP
EXCEPT 325VP
325UB
D055
STANDBY
S055
RESET


MA-125 BOARD
(See Page 75, 83)
SLV-325CP
CP-52 BOARD
(See Page 85)
IC101
VIDEO SELECT
IC201
AUDIO SELECT
(See Page 65)
IC701
Y PROCESS
IC802
SYNC SEP
IC702
1H DELAY CCD
YP-11 BOARD
(See Page 69)
PC-54 BOARD
IC801
CHROMA PROCESS
Q201 5.8V REG
C203
5.8V REG DRIVE
Q202 5V REG
5V REG DRIVE
IC204
IC201
9V REG
CN711
DC +35V
UNSW 5.8V
SW 5V
SW 9V
POWER CTRL
CN202
T1702
IC703
TUNER
RF201
RF MODULATOR
IC201
VIDEO/AUDIO INPUT SELECT
IC301
AUDIO REC/PB AMP
UNSW 5V
CN603
CN102
SW 5V
SW 9V
CN702
CN702
CN703
CN801
D201
UNSW 5V
SERVO/SYSTEM CONTROL
IC501
BUZZER
IC001
RP-100 BOARD
(See Page 59)
CN903
CN003
REC/PB AMP
SW 9V
SERVO REFERENCE VOLTAGE
IC402
DRUM ERROR/CAPSTAN ERROR INTEGRATOR
IC401
IC005
DRUM FG/PG SEPARATOR
IC004
DRUM MOTOR DRIVE
CN907
CN007
MTR 12V
SW 5V
UNSW 5V
MTR 12V
CN002
CAPSTAN MOTOR
CN001
MTR 12V
VCC
DRUM MOTOR
IC002
WAVE SHAPER (S REEL, T REEL, T SENS, S SENS)
TAPE END SENSOR (T SENS, S SENS)
REL FG SENSOR (T REEL, S REEL)
CN712
MTR 12V
UNSW 12V
D204
MTR 12V
SW 5V
CTL HEAD CONTROL CTL AMP
IC101
CAM/LOADING MOTOR DRIVE
IC404
F -30V
F 3.6V
F 0V
CN203
F 0V
F 3.6V
F -30V
CN501
CN001
MF-151 BOARD
(See Page 102)
FL001
FLUORESCENT DISPLAY
IC001
TIMER/MODE CONTROL
76 V FDP
42 AD6
58 OFF VPS STBY
POWER CTRL 78
POWER FAIL 61
IC002
POWER FALL DETECT
IC003
RESET 32
D003
RESET
D001
VDD 34
C007 BACK-UP
SW 5V
UN SW 5V
D002
REMOTE CONTROL RECIEVER
IC005
NON VOLATAILE MEMORY
IC004
CN904
CN004
LAMP Vcc
TAPE LED
(See Page 97)
MD-40 BOARD
S051 POWER
D051, D052
325VP
EXCEPT 325VP
325UB
D055 STANDBY
S055 RESET
CN051
CN004
MF-152 BOARD
(See Page 101)
CN001
CN501
UNSW 5.8V
BACK UP 5V
SW 5V
CN402
CN402
CN401
CN401
D407
SLV-325VP
IC801
IC802
VPS
UNSW 5V
IC401
ON SCREEN DISPLAY
IC490
SYNC SEP
H SYNC DETECT
(See Page 90)
CV-26 BOARD

## 4-1. FRAME SCHEMATIC DIAGRAM


PC-54 BOARD
CP-53 BOARD
(CP MODEL)
CANAL PLUS
CNJ120
FOR CHECK
RP-100 BOARD
YP-11 BOARD
CP-52 BOARD
(CP MODEL)
CV-26 BOARD
(DRUM MOTOR)
FULL ERASE
CTL
ACE HEAD
AUDIO ERASE
AUDIO
FOR ADJUST
MA-125 BOARD
MD-40 BOARD
MF-151 BOARD
FL001
FLUORESCENT DISPLAY
POWER BLOCK
M901 DRUM MOTOR
M902 CAPSTAN MOTOR
S1 ROTARY SWITCH
M904 LOADING MOTOR
M903 CAM MOTOR
MF-152 BOARD
DUAL MODE SHUTTLE
SW CONTROL BLOCK


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
CANAL PLUS
CNJ120
PC-54 BOARD
CP-53 BOARD
(CP MODEL)
CP-52 BOARD
(CP MODEL)
YP-11 BOARD
CV-26 BOARD
RFU MODULATOR
AERIAL
OUT
IN
TUNER
VHF/UHF IN
MA-125 BOARD
MF-151 BOARD
FL001
FLUORESCENT DISPLAY
POWER BLOCK
AC INLET
CN201
EURO AV
M904
LOADING
MOTOR
M903
CAM
MOTOR
MF-152
BOARD
DUAL MODE
SHUTTLE
SW CONTROL
BLOCK
A OUT (R)
A IN (R)
A OUT (L)
GND (A)
GND (B)
A IN (L)
B
CONTROL
GND (G)
N.C.
G
N.C.
GND (R)
GND (I)
R
I
GND (V)
GND (V)
V OUT
V IN
GND (S)
REC C
COLOR ROT
PB C
GND (V)
N.C.
GND (V)
CHROMA
13.5MHz
SW 5V
C SYNC 1 (H)
LP/SP
V PB
V IN
V.RF ENVELOP
MESECAM
PB FM
GND (V)
REC FM
GND (V)
C SYNC 1 (H)
COLOR ROT
GND (V)
PB C
GND (V)
REC C
V OUT
GND (V)
GND (V)
LP/SP
V PB
C SYNC 2 (V)
EDIT
RF SWP
SHARPNESS
Q VD
SW 9V
SW 5V
GND (V)
GND (V)
V IN
MESECAM
V RF ENVELOP
VPS BROADCAST
V IN
GND (V)
V OUT
SW 5V
COSMO RESET
OSD Q VD
OSD JOG
MESECAM
CG CS
UNSW 5.8V
GND (UNSW)
TU V IN
SI
SO
SCLK
VPS RESET
VPS CS
BACK UP 5V
H-DET
GND (SW)
MOD V
MOD A
SW 5V/TV VTR
UNSW 5V
AUDIO OUT
AUDIO IN
AUDIO OUT
AUDIO GND
GND
AUDIO IN
N.C.
FUNCTION CONT
GND
N.C.
N.C.
GND
GND
N.C.
N.C.
VIDEO OUT GND
VIDEO IN GND
VIDEO OUT
VIDEO IN
GND
AFT
RF CTRL
BUZZER
TV SYSTEM
BAND SEL
PLL DATA
PLL CLOCK
PLL ENABLE
CG CS
COSMO RESET
COSMO CS
VPS RESET
VPS CS
MESECAM
MESECAM
SO (TO 1/T)
SI (FROM 1/T)
SCLK
GND (UNSW)
POWER CTRL
GND (UNSW)
EC +35V
UNSW 5.8V
GND (SW)
SW 5V
SW 9V
GND (A)
GND (MTR)
GND (MTR)
MTR 12V
MTR 12V
GND (SW)
UNSW 12V
F -30V
F 3.6V
F 0V
UNSW 5V
N.C.
POWER/EJECT
RESET
OFF VPS REC STBY
GND (UNSW)
SW 5V
SHARPNESS
GND (SW)
MESECAM
SECAM/PAL
FWD/RVS
RING 2
RING 1
COMMON 1
RING 0
PLAY BACK
COMMON 2
STOP
KEY AD6
KEY AD5
KEY AD4
GND (UNSW)
LOAD (-)
LOAD (+)
CAM (-)
N.C.
CAM (+)
MODE 1
MODE 2
GND (UNSW)

## 4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**
**(In addition to this , the necessary note is printed in each block.)**

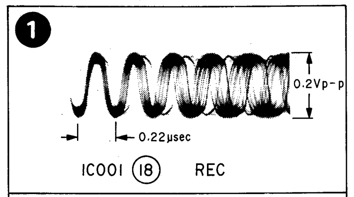
- **For printed wiring boards.**
- ○— : indicated a lead wire mounted on the component side.
- —— : indicated a lead wire mounted on the conductor side.
- ■ : Parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- Circled numbers refer to waveforms.

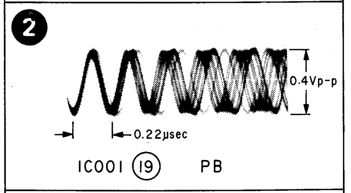
- **For schematic diagrams.**
- All resistors are in ohms, 1/4W unless otherwise noted. kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF. 50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ☐ : panel designation.
- ☐ : adjustment for repair.
- —— : B+ Line.
- - - - : B– Line.
- ⇛ : IN/OUT direction of (+, –) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC10MΩ ).
- Voltage variations may be noted due to normal production tolerances.

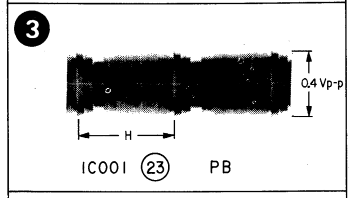
**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

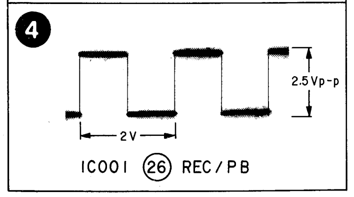
When indicating parts by reference number, please include the board name.

### RP-100 BOARD



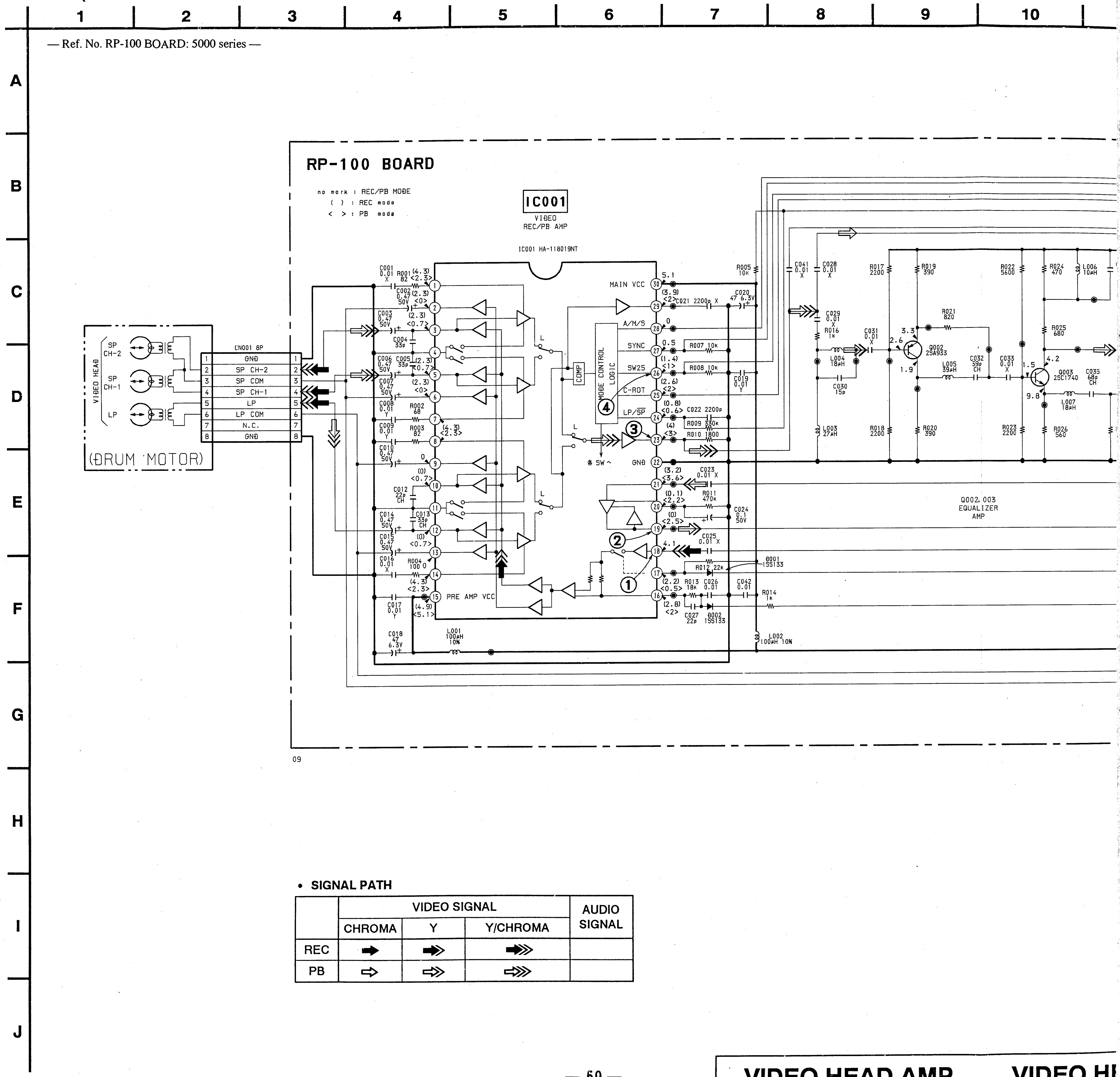






## RP-100 (VIDEO REC/PB AMP) SCHEMATIC DIAGRAM

— Ref. No. RP-100 BOARD: 5000 series —


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
J
RP-100 BOARD
no mark : REC/PB MODE
( ) : REC mode
< > : PB mode
IC001
VIDEO REC/PB AMP
IC001 HA-11801SNT
VIDEO HEAD
SP CH-2
SP CH-1
LP
(DRUM MOTOR)
CN001 8P
GND
SP CH-2
SP COM
SP CH-1
LP
LP COM
N.C.
GND
MAIN VCC
A/M/S
SYNC
SW25
C-ROT
LP/SP
GND
PRE AMP VCC
COMP
MODE CONTROL LOGIC
SW
Q002 2SA933
Q003 2SC1740
Q002, 003 EQUALIZER AMP
D001 1SS133
D002 1SS133
L001 100μH 10%
L002 100μH 10%
09

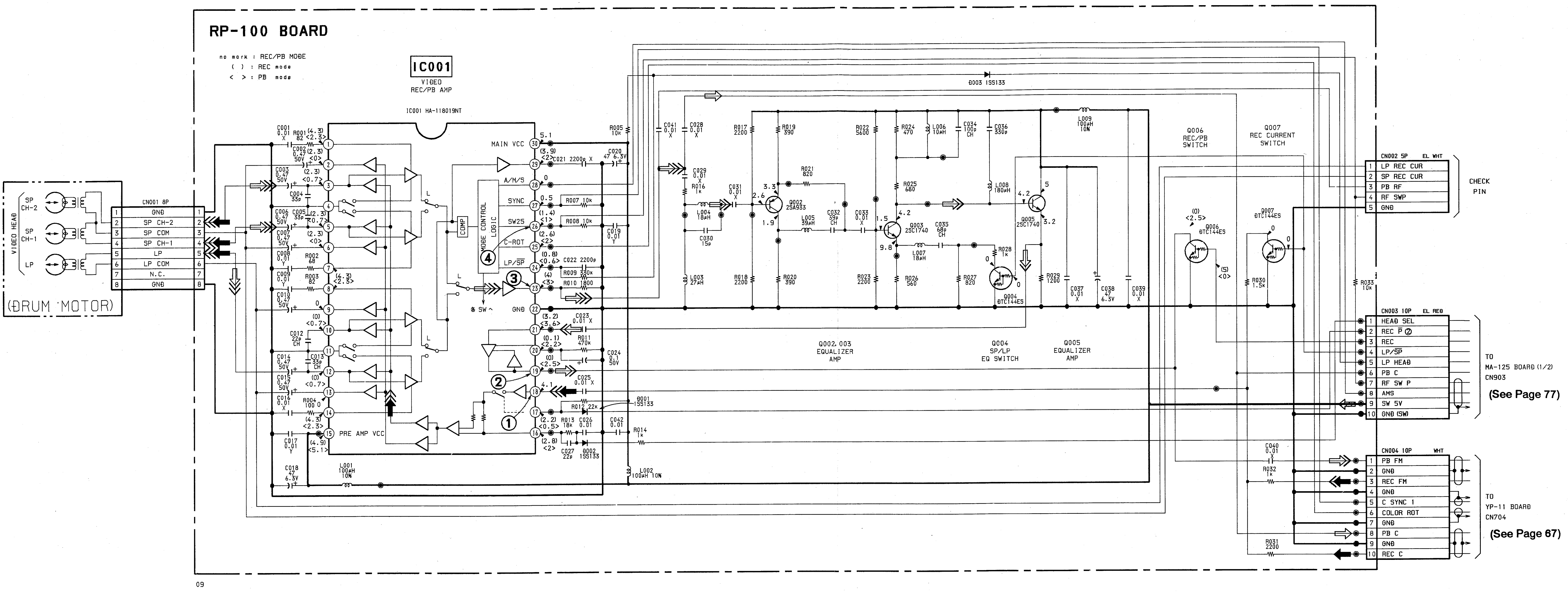
- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | ➡ | ➡➡ | ➡➡➡ | |
| PB | ⇨ | ⇨⇨ | ⇨⇨⇨ | |

## 00 (VIDEO REC/PB AMP) SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Ref. No. RP-100 BOARD: 5000 series —



RP-100 BOARD
no mark : REC/PB MODE
( ) : REC mode
< > : PB mode
IC001
VIDEO REC/PB AMP
IC001 HA-118019NT
MAIN VCC
A/M/S
SYNC
SW25
C-ROT
LP/SP
GND
PRE AMP VCC
MODE CONTROL LOGIC
COMP
VIDEO HEAD
SP CH-2
SP CH-1
LP
(DRUM MOTOR)
CN001 8P
GND
SP CH-2
SP COM
SP CH-1
LP
LP COM
N.C.
GND
D003 1SS133
D001 1SS133
D002 1SS133
Q002 2SA933
Q003 2SC1740
Q005 2SC1740
Q004 DTC144ES
Q006 DTC144ES
Q007 DTC144ES
Q002, 003 EQUALIZER AMP
Q004 SP/LP EQ SWITCH
Q005 EQUALIZER AMP
Q006 REC/PB SWITCH
Q007 REC CURRENT SWITCH
CN002 5P EL WHT
1 LP REC CUR
2 SP REC CUR
3 PB RF
4 RF SWP
5 GND
CHECK PIN
CN003 10P EL RED
1 HEAD SEL
2 REC P ②
3 REC
4 LP/SP
5 LP HEAD
6 PB C
7 RF SW P
8 AMS
9 SW 5V
10 GND (SW)
TO MA-125 BOARD (1/2) CN903
(See Page 77)
CN004 10P WHT
1 PB FM
2 GND
3 REC FM
4 GND
5 C SYNC I
6 COLOR ROT
7 GND
8 PB C
9 GND
10 REC C
TO YP-11 BOARD CN704
(See Page 67)
09

• **SIGNAL PATH**

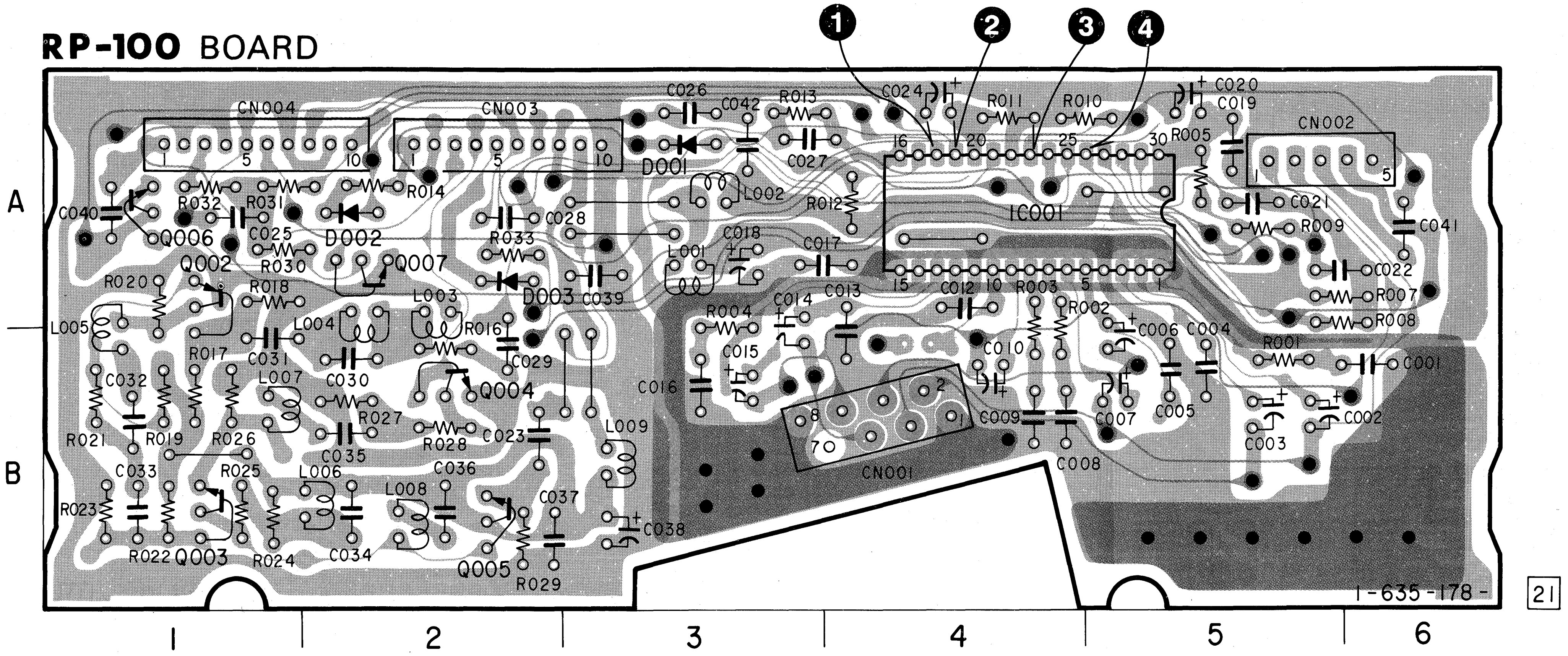
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | ➡ | ➡➡ | ➡➡➡ | |
| PB | ⇨ | ⇨⇨ | ⇨⇨⇨ | |

### RP-100 (VIDEO REC/PB AMP) PRINTED WIRING BOARD

— Ref. No. RP-100 BOARD: 5000 series —

- For printed wiring boards
- ● : Through hole.
- ▨ : Pattern of the rear side.

## RP-100 BOARD


❶
❷
❸
❹
A
B
1
2
3
4
5
6
CN004
CN003
CN002
CN001
IC001
D001
D002
D003
Q002
Q003
Q004
Q005
Q006
Q007
L001
L002
L003
L004
L005
L006
L007
L008
L009
R001
R002
R003
R004
R005
R007
R008
R009
R010
R011
R012
R013
R014
R016
R017
R018
R019
R020
R021
R022
R023
R024
R025
R026
R027
R028
R029
R030
R031
R032
R033
C001
C002
C003
C004
C005
C006
C007
C008
C009
C010
C012
C013
C014
C015
C016
C017
C018
C019
C020
C021
C022
C023
C024
C025
C026
C027
C028
C029
C030
C031
C032
C033
C034
C035
C036
C037
C038
C039
C040
C041
C042
1-635-178-
21

| RP-100 BOARD | |
|---|---|
| D001 | A-3 |
| D002 | A-2 |
| D003 | A-2 |
| IC001 | A-4 |
| Q002 | A-1 |
| Q003 | B-1 |
| Q004 | B-2 |
| Q005 | B-2 |
| Q006 | A-1 |
| Q007 | A-2 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D001 | 8-719-911-19 | DIODE | 1SS119 |
| D002 | 8-719-911-19 | DIODE | 1SS119 |
| D003 | 8-719-911-19 | DIODE | 1SS119 |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC001 | 8-759-320-52 | IC | HA118019NT |

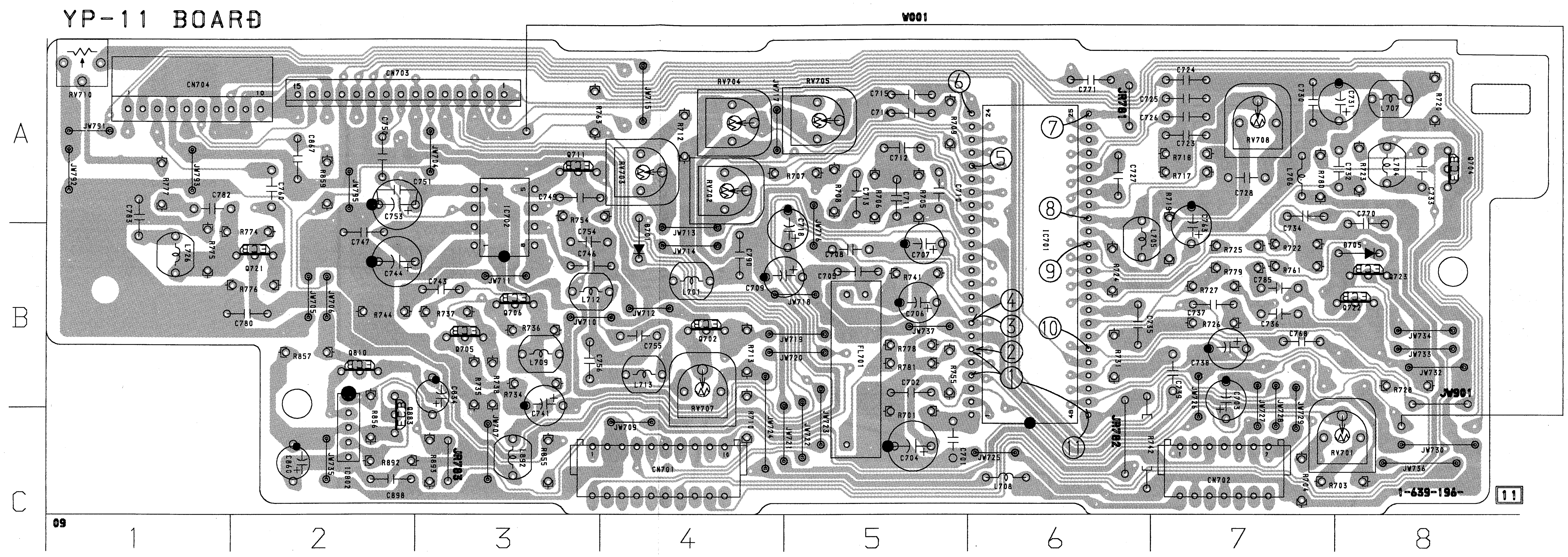
〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q002 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q003 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q004 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q005 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q006 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q007 | 8-729-900-89 | TRANSISTOR | DTC144ES |

## YP-11 (Y PROCESS) PRINTED WIRING BOARD

— Ref. No. YP-11 BOARD: 6000 series —

| YP-11 BOARD | |
|---|---|
| D701 | B-4 |
| D705 | B-8 |
| IC701 | B-6 |
| IC702 | A-3 |
| IC802 | C-2 |
| Q702 | B-4 |
| Q704 | A-8 |
| Q705 | B-3 |
| Q706 | B-3 |
| Q711 | A-3 |
| Q721 | B-2 |
| Q722 | B-8 |
| Q723 | B-8 |
| Q810 | B-2 |
| Q883 | C-2 |


YP-11 BOARD
V001
A
B
C
1
2
3
4
5
6
7
8
CN701
CN702
CN703
CN704
IC701
IC702
IC802
RV701
RV703
RV704
RV705
RV707
RV708
RV710
FL701
1-639-196-
11
09

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D701 | 8-719-911-19 | DIODE | 1SS119 |
| D705 | 8-719-911-19 | DIODE | 1SS119 |

〈 IC 〉

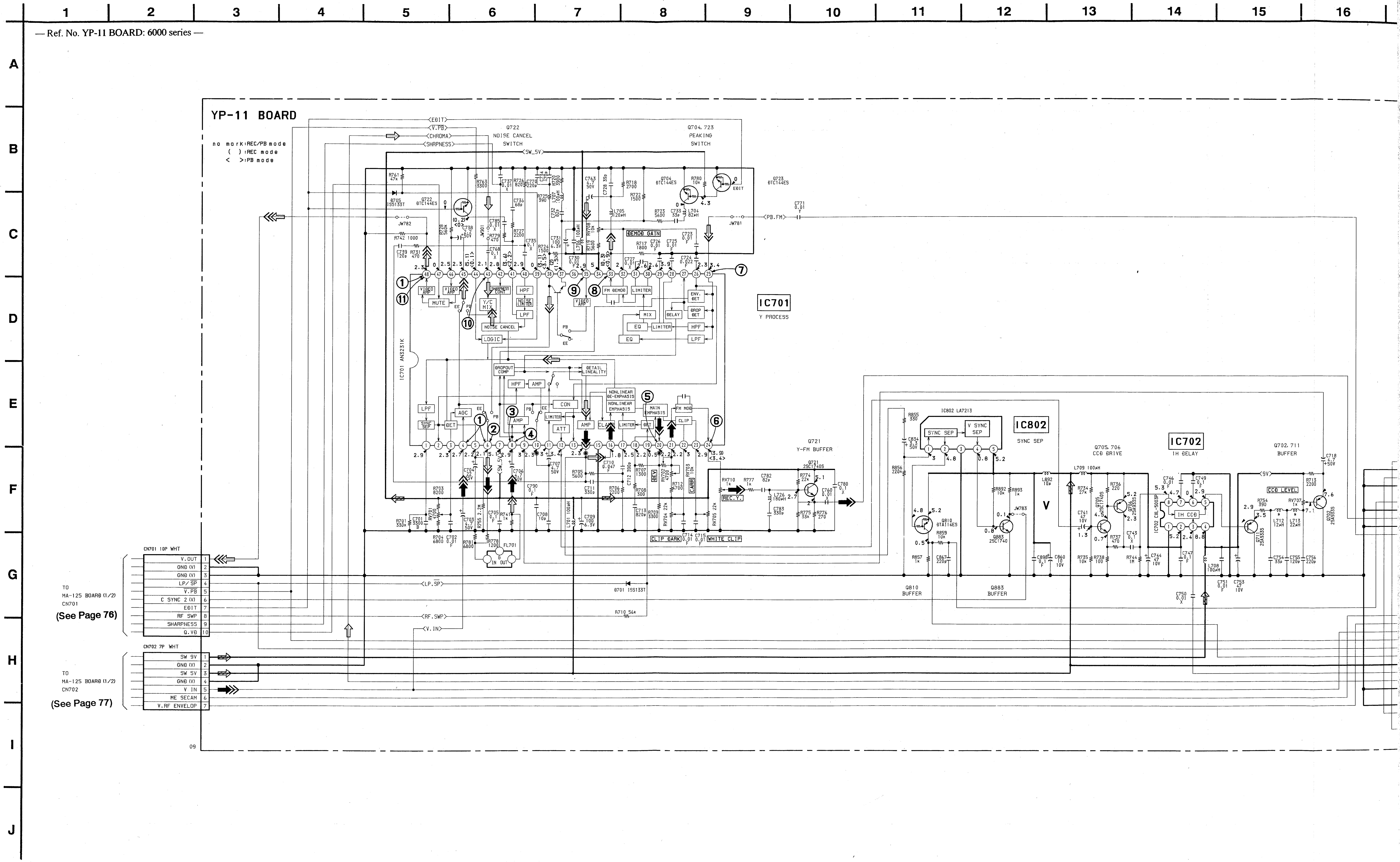
| | | | |
|---|---|---|---|
| IC701 | 8-759-420-07 | IC | AN3231K |
| IC702 | 8-752-321-89 | IC | CXL5003P |
| IC802 | 8-759-822-05 | IC | LA7213 |

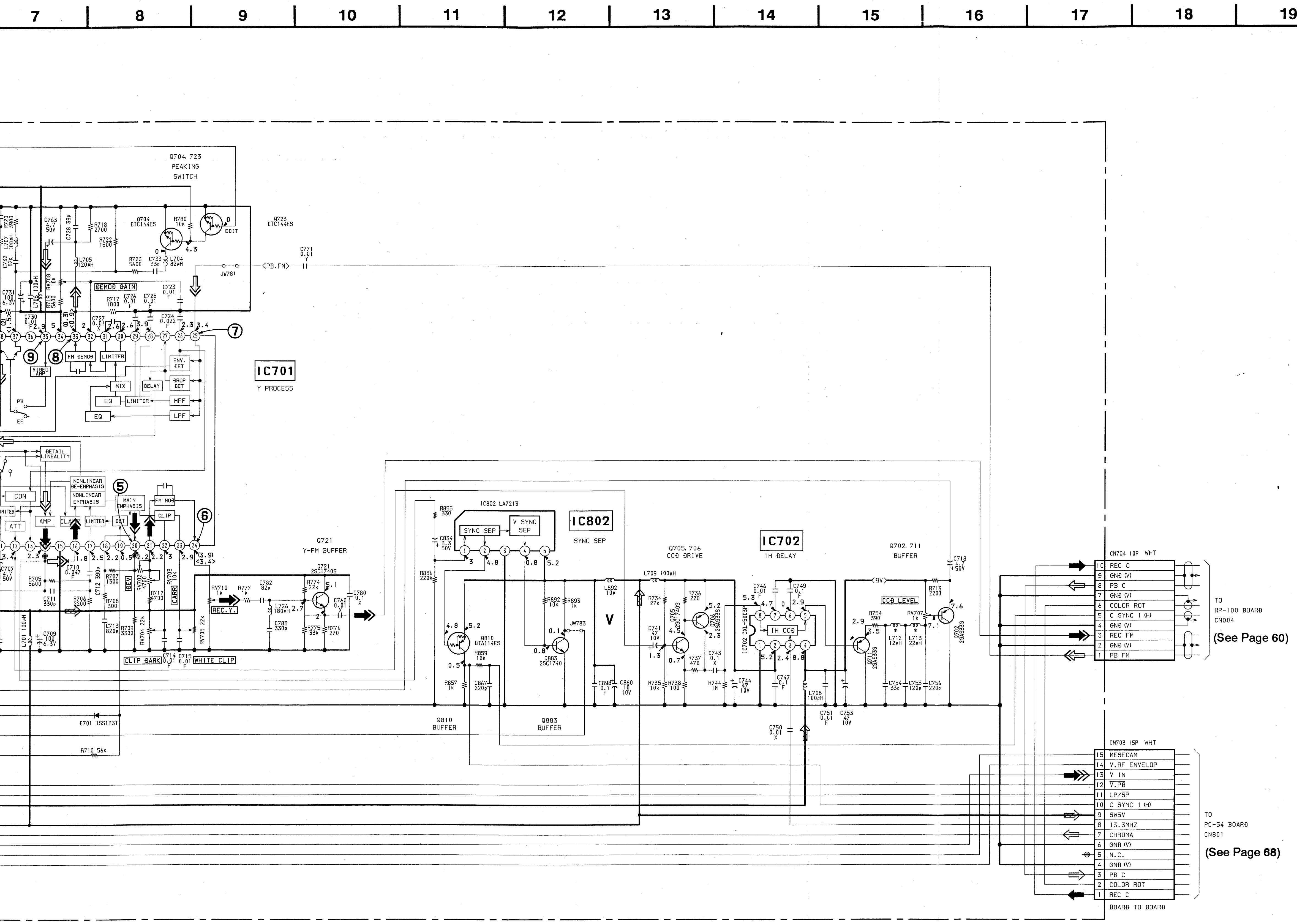
〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q702 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q704 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q705 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q706 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q711 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q721 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q722 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q723 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q810 | 8-729-900-65 | TRANSISTOR | DTA144ES |
| Q883 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |

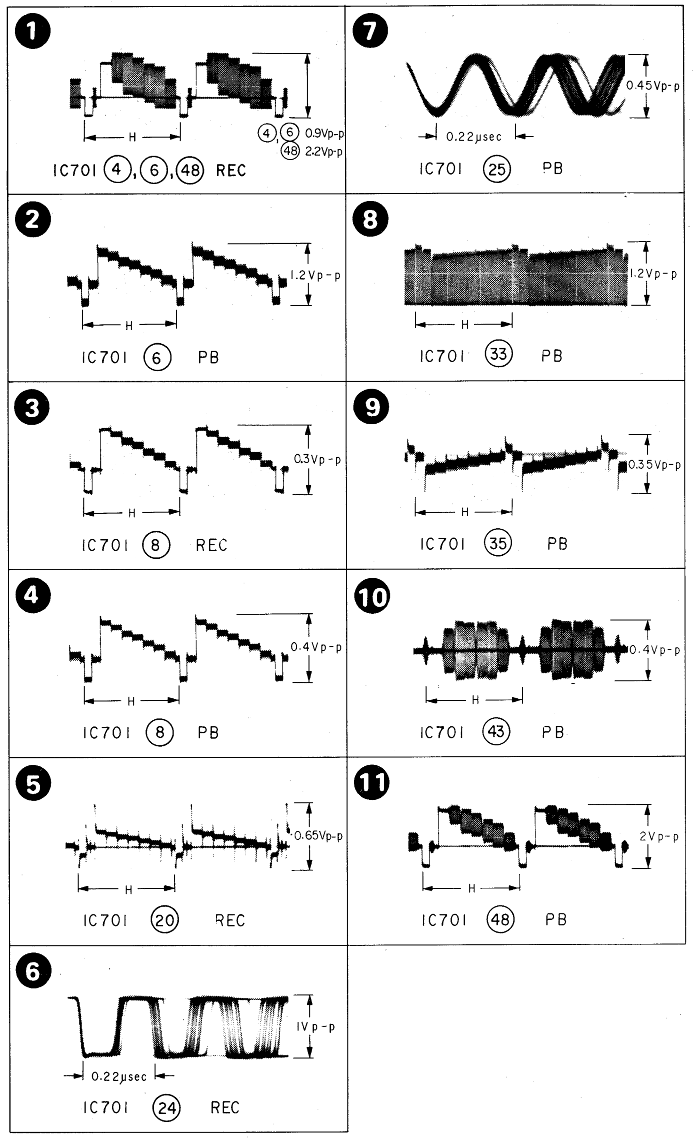
## YP-11 (Y PROCESS) SCHEMATIC DIAGRAM

— Ref. No. YP-11 BOARD: 6000 series —


YP-11 BOARD
no mark:REC/PB mode
( ) :REC mode
< >:PB mode
Q722 NOISE CANCEL SWITCH
Q704, 723 PEAKING SWITCH
IC701 Y PROCESS
IC701 AN3231K
IC802 LA7213
IC802 SYNC SEP
IC702 1H DELAY
IC702 CXL-5005P
Q721 Y-FM BUFFER
Q705, 706 CCD DRIVE
Q702, 711 BUFFER
Q810 BUFFER
Q803 BUFFER
VIDEO AMP
MUTE
Y/C MIX
SHARPNESS CONT
NOISE CANCEL
LOGIC
HPF
LPF
NOISE LIMITER
FM DEMOD
LIMITER
ENV. DET
DROP DET
DELAY
MIX
EQ
DROPOUT COMP
DETAIL LINEALITY
AMP
AGC
SYNC SEP
DET
ATT
CON
NONLINEAR DE-EMPHASIS
NONLINEAR EMPHASIS
MAIN EMPHASIS
FM MOD
CLIP
CLAMP
V SYNC SEP
1H CCD
DEMOD GAIN
CLIP DARK
WHITE CLIP
REC.Y
CCD LEVEL
<EDIT>
<V.PB>
<CHROMA>
<SHARPNESS>
<SW_5V>
<PB.FM>
<LP.SP>
<RF.SWP>
<V.IN>
<9V>
CN701 10P WHT
V.OUT
GND (V)
GND (V)
LP/ SP
V.PB
C SYNC 2 (V)
EDIT
RF SWP
SHARPNESS
Q.VD
TO MA-125 BOARD (1/2) CN701
(See Page 76)
CN702 7P WHT
SW 9V
GND (V)
SW 5V
GND (V)
V IN
ME SECAM
V.RF ENVELOP
TO MA-125 BOARD (1/2) CN702
(See Page 77)
D701 1SS133T
R710 56k
FL701
IN OUT


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
Q704, 723 PEAKING SWITCH
Q704 DTC144ES
Q723 DTC144ES
EDIT
DEMOD GAIN
<PB.FM>
JW781
C771 0.01
IC701
Y PROCESS
FM DEMOD
LIMITER
ENV. DET
DROP DET
MIX
DELAY
EQ
LIMITER
HPF
LPF
VIDEO AMP
DETAIL LINEALITY
NONLINEAR DE-EMPHASIS
NONLINEAR EMPHASIS
MAIN EMPHASIS
FM MOD
CLIP
CON
ATT
AMP
CLAMP
LIMITER
DEV
CARR
CLIP DARK
WHITE CLIP
REC.Y.
Q721 Y-FM BUFFER
Q721 2SC1740S
IC802 LA7213
IC802
SYNC SEP
SYNC SEP
V SYNC SEP
Q810 DTA114ES
Q883 2SC1740
JW783
Q810 BUFFER
Q883 BUFFER
V
Q705, 706 CCD DRIVE
IC702
1H DELAY
IC702 CXL-5008P
1H CCD
CCD LEVEL
Q702, 711 BUFFER
<9V>
D701 1SS133T
R710 56k
CN704 10P WHT
10 REC C
9 GND (V)
8 PB C
7 GND (V)
6 COLOR ROT
5 C SYNC 1 (H)
4 GND (V)
3 REC FM
2 GND (V)
1 PB FM
TO RP-100 BOARD CN004
(See Page 60)
CN703 15P WHT
15 MESECAM
14 V.RF ENVELOP
13 V IN
12 V.PB
11 LP/SP
10 C SYNC 1 (H)
9 SWSV
8 13.3MHZ
7 CHROMA
6 GND (V)
5 N.C.
4 GND (V)
3 PB C
2 COLOR ROT
1 REC C
TO PC-54 BOARD CN801
(See Page 68)
BOARD TO BOARD

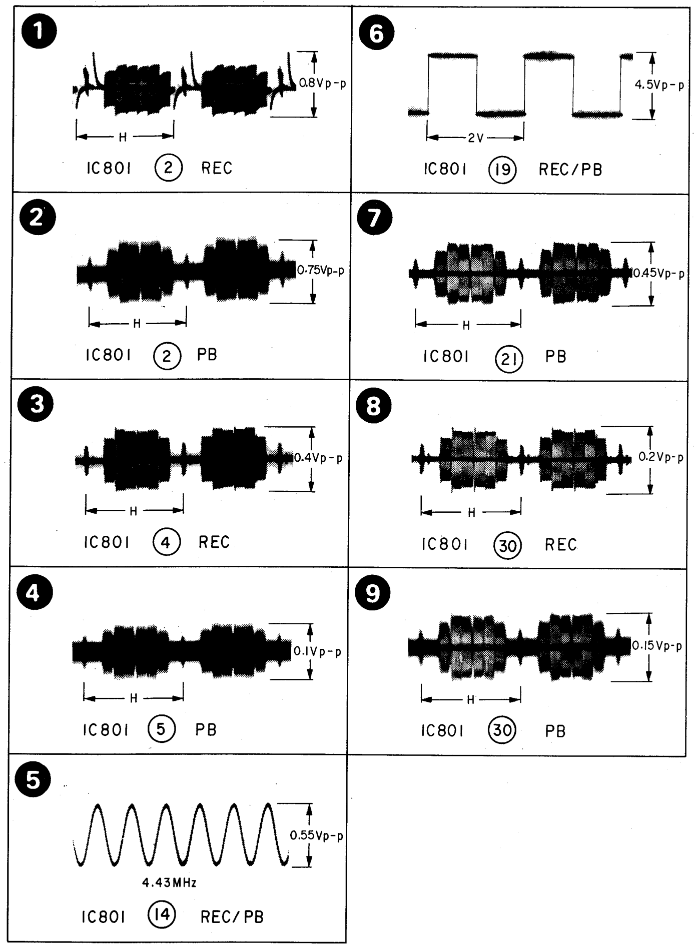
**YP-11** BOARD



- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | ➡ | ➡» | ➡»» | |
| PB | ⇨ | ⇨» | ⇨»» | |

**PC-54** BOARD

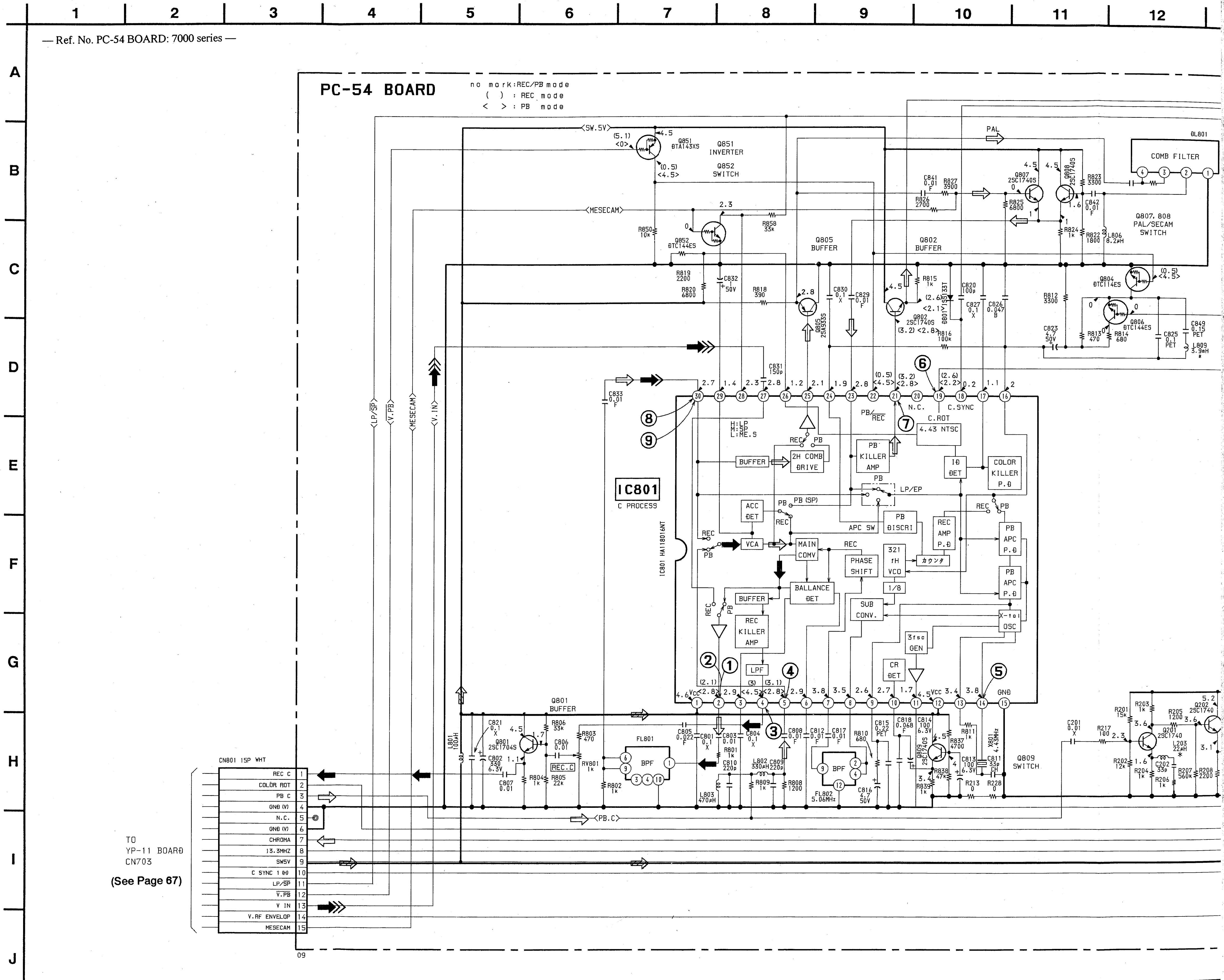


- **SIGNAL PATH**

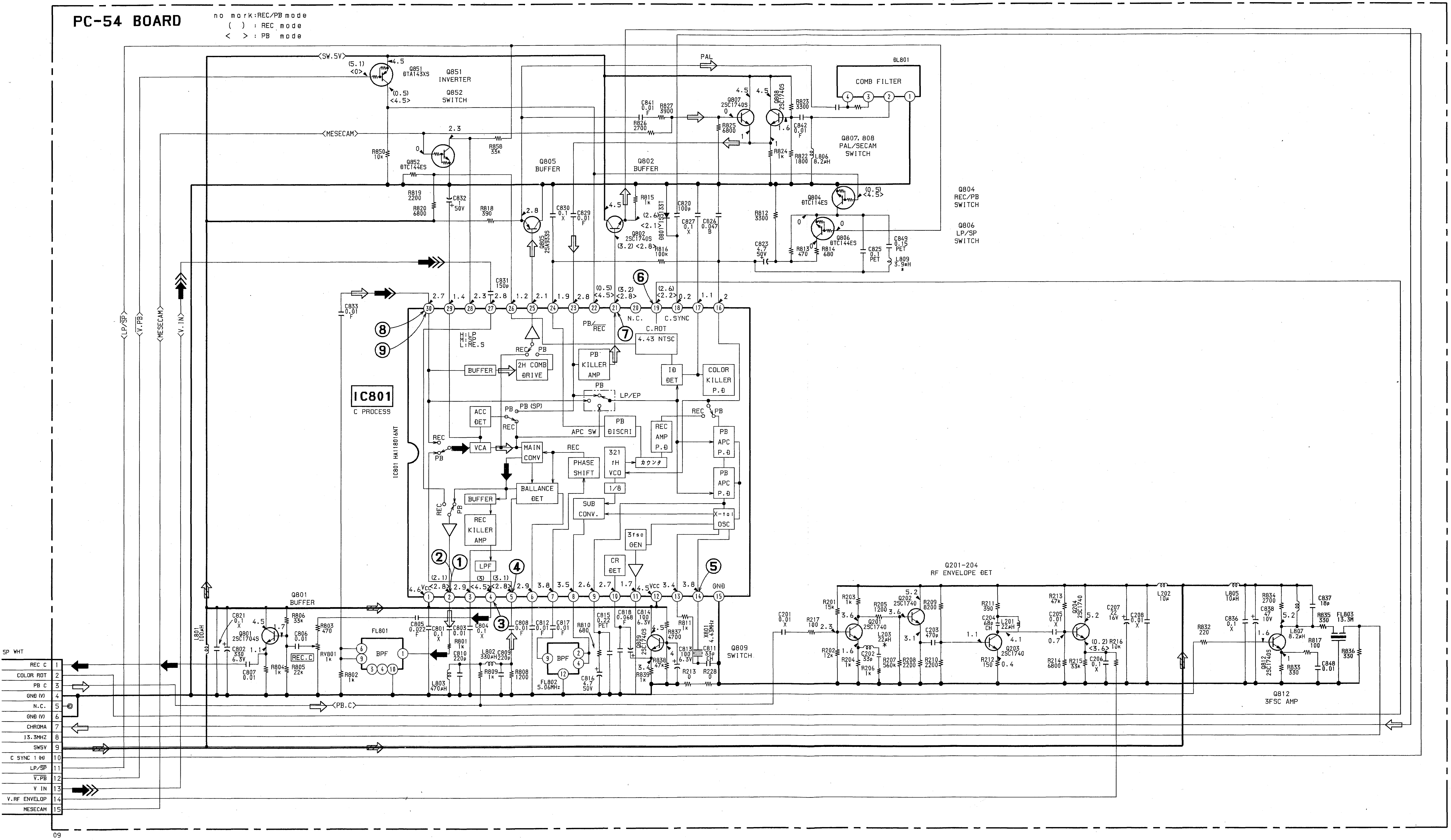
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | ➡ | ⇛ | ⋙ | |
| PB | ⇨ | | | |

## PC-54 (CHROMA PROCESS) SCHEMATIC DIAGRAM

— Ref. No. PC-54 BOARD: 7000 series —

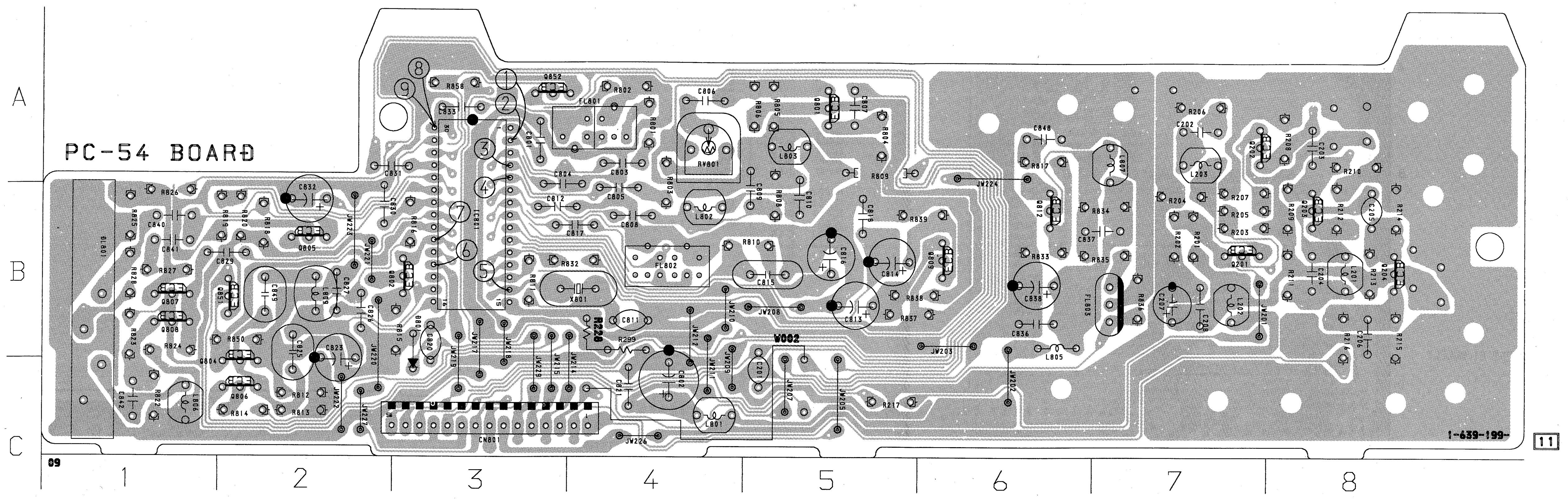

1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
PC-54 BOARD
no mark:REC/PB mode
( ) : REC mode
< > : PB mode
<SW.5V>
Q851 DTA143XS
Q851 INVERTER
Q852 SWITCH
<MESECAM>
Q852 DTC144ES
R850 10k
R858 33k
R819 2200
R820 6800
C832 1 50V
R818 390
Q805 BUFFER
Q805 2SA933S
C830 0.1 X
C829 0.01 F
Q802 BUFFER
Q802 2SC1740S
R815 1k
R816 100k
C820 100p
C827 0.1 X
C826 0.047 B
D801
PAL
C841 0.01 F
R827 3900
R826 2700
R825 6800
Q807 2SC1740S
Q808 2SC1740S
R823 3300
C842 0.01 F
R824 1k
R822 1800
L806 8.2μH
Q807, 808 PAL/SECAM SWITCH
DL801
COMB FILTER
Q804 DTC114ES
R812 3300
Q806 DTC144ES
C823 4.7 50V
R813 470
R814 680
C825 0.1 PET
C849 0.15 PET
L809 3.9mH
C831 150p
C833 0.01 F
IC801
C PROCESS
IC801 HA11801GNT
H:LP
M:SP
L:ME.S
PB/REC
N.C.
C.SYNC
C.ROT
4.43 NTSC
BUFFER
2H COMB DRIVE
PB KILLER AMP
LP/EP
1H DET
COLOR KILLER P.D
ACC DET
PB (SP)
APC SW
PB DISCRI
REC AMP P.D
PB APC P.D
VCA
MAIN CONV
PHASE SHIFT
321 fH VCO
カウンタ
1/8
BALLANCE DET
BUFFER
REC KILLER AMP
SUB CONV.
X-tal OSC
3fsc GEN
LPF
CR DET
Vcc
GND
<LP/SP>
<V.PB>
<MESECAM>
<V.IN>
Q801 BUFFER
Q801 2SC1704S
C821 0.1 X
C802 330 6.3V
C807 0.01
R806 33k
C806 0.01
R803 470
REC.C
RV801 1k
R804 1k
R805 22k
R802 1k
FL801
BPF
C805 0.022 F
C801 0.1
C803 0.01 X
C804 0.1 X
R801 1k
C810 220p
L803 470μH
L802 330μH
C809 220p
R809 1k
R808 1200
C808 0.01
C812 0.01
C817 0.01
R810 680
FL802 5.06MHz
C816 4.7 50V
C815 0.22 PET
C818 0.068 F
C814 100 6.3V
Q809 2SC1740S
R837 4700
R838 47k
R839 1k
R811 1k
C813 100 6.3V
C811 33p CH
R213 0
R228 0
X801 4.43MHz
Q809 SWITCH
L801 100μH
<PB.C>
C201 0.01 X
R217 100
R201 15k
R202 12k
R203 1k
R204 1k
R205 1200
Q201 2SC1740
Q202 2SC1740
C202 33p
R206 1k
L203 22μH
R207 560k
R208 2200
CN801 15P WHT
REC C
COLOR ROT
PB C
GND (V)
N.C.
GND (V)
CHROMA
13.3MHZ
SW5V
C SYNC 1 HD
LP/SP
V.PB
V IN
V.RF ENVELOP
MESECAM
TO YP-11 BOARD CN703
(See Page 67)
09

3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19


PC-54 BOARD
no mark:REC/PB mode
( ) : REC mode
< > : PB mode
<SW.5V>
Q851 DTA143XS
Q851 INVERTER
Q852 SWITCH
<MESECAM>
Q852 DTC144ES
Q805 BUFFER
Q802 BUFFER
PAL
BL801
COMB FILTER
Q807 2SC1740S
Q808 2SC1740S
Q807, 808 PAL/SECAM SWITCH
Q804 DTC114ES
Q804 REC/PB SWITCH
Q806 DTC144ES
Q806 LP/SP SWITCH
Q805 2SA933S
Q802 2SC1740S
D801 1SS133T
IC801
C PROCESS
IC801 HA11801NT
H:LP
M:SP
L:ME.5
BUFFER
2H COMB DRIVE
PB KILLER AMP
C.ROT
4.43 NTSC
ID DET
COLOR KILLER P.D
LP/EP
ACC DET
PB (SP)
APC SW
PB DISCRI
REC AMP P.D
PB APC P.D
VCA
MAIN CONV
PHASE SHIFT
321 fH VCO
カウンタ
BALLANCE DET
1/8
SUB CONV.
X-tal OSC
REC KILLER AMP
3fsc GEN
CR DET
LPF
N.C.
C.SYNC
PB/REC
GND
Vcc
Q801 BUFFER
Q801 2SC1704S
FL801
BPF
REC.C
RV801 1k
FL802 5.06MHz
X801 4.43MHz
Q809 2SC1740S
Q809 SWITCH
<PB.C>
Q201-204 RF ENVELOPE DET
Q201 2SC1740
Q202 2SC1740
Q203 2SC1740
Q204 2SC1740
Q812 2SC1740S
Q812 3FSC AMP
FL803 13.3M
<LP/SP>
<V.PB>
<MESECAM>
<V.IN>
SP WHT
REC C
COLOR ROT
PB C
GND (V)
N.C.
GND (V)
CHROMA
13.3MHZ
SW5V
C SYNC 1 (H)
LP/SP
V.PB
V IN
V.RF ENVELOP
MESECAM
09

## PC-54 (CHROMA PROCESS) PRINTED WIRING BOARD

— Ref. No. PC-54 BOARD: 7000 series —



| PC-54 BOARD | |
|---|---|
| D801 | B-3 |
| IC801 | B-3 |
| Q201 | B-7 |
| Q202 | A-7 |
| Q203 | B-8 |
| Q204 | B-8 |
| Q801 | A-5 |
| Q802 | B-3 |
| Q804 | C-2 |
| Q805 | B-2 |
| Q806 | C-2 |
| Q807 | B-1 |
| Q808 | B-1 |
| Q809 | B-6 |
| Q812 | B-6 |
| Q851 | B-2 |
| Q852 | A-3 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D801 | 8-719-911-19 | DIODE | 1SS119 |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC801 | 8-759-320-78 | IC | HA118016NT |

〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q201 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q202 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q203 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q204 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q801 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q802 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q804 | 8-729-900-80 | TRANSISTOR | DTC114ES |
| Q805 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q806 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q807 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q808 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q809 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q812 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q851 | 8-729-903-02 | TRANSISTOR | DTA143XS |
| Q852 | 8-729-900-89 | TRANSISTOR | DTC144ES |

## MA-125 (SERVO/SYSTEM CONTROL/TUNER, AUDIO) PRINTED WIRING BOARD

— Ref. No. MA-125 BOARD: 1000 series —

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D201 | 8-719-974-59 | DIODE | 1SR139-100 |
| D202 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D203 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D206 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D207 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D208 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D209 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D210 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D220 | 8-719-987-06 | DIODE | WG713A |
| D220 | 8-719-911-19 | DIODE | 1SS119 |
| D250 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D301 | 8-719-987-06 | DIODE | WG713A |
| D301 | 8-719-911-19 | DIODE | 1SS119 |
| D302 | 8-719-987-06 | DIODE | WG713A (EXCEPT EI MODEL) |
| D404 | 8-719-109-85 | DIODE | RD5. 1ES-B2 |
| D501 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D505 | 8-719-987-06 | DIODE | WG713A |
| D505 | 8-719-911-19 | DIODE | 1SS119 |
| D701 | 8-719-982-26 | DIODE | MTZJ-33B |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC101 | 8-759-246-14 | IC | TA8823N |
| IC201 | 8-759-007-21 | IC | MC74HC4053N |
| IC301 | 8-759-805-20 | IC | LA7297 |
| IC401 | 8-759-503-91 | IC | TL082ACP |
| IC402 | 8-759-008-70 | IC | LM358N |
| IC404 | 8-759-983-45 | IC | BA6238A |
| IC501 | 8-752-817-87 | IC | CXP80624-209Q (CP, UB MODEL) |
| IC501 | 8-752-832-90 | IC | CXP80624-253Q (AEP, EI, VP MODEL) |

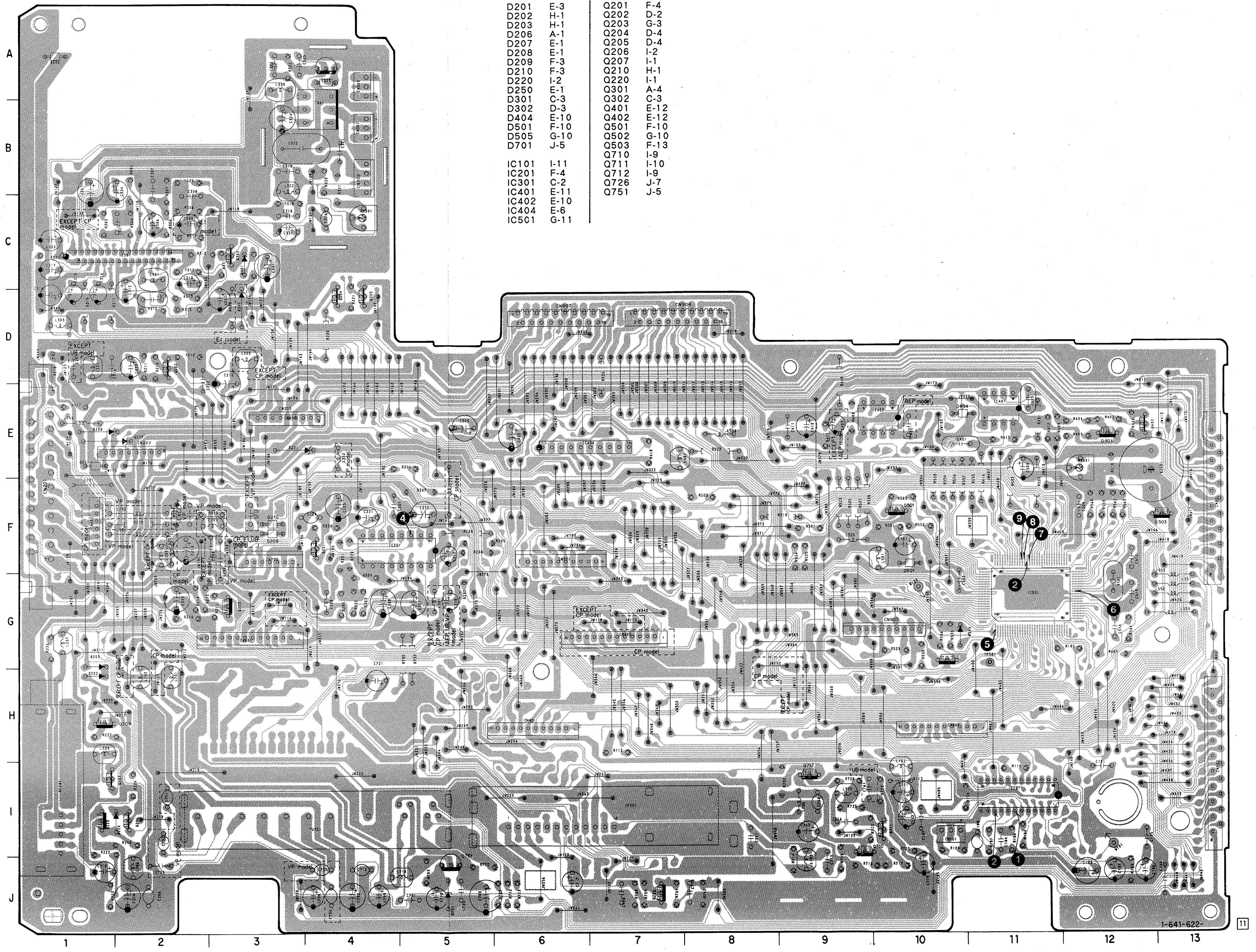
〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q201 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q202 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q203 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q204 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q205 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q206 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q207 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q210 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q220 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q301 | 8-729-111-55 | TRANSISTOR | 2SC1509 |
| Q302 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q401 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q402 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q501 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q502 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q503 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q710 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q711 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q712 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q726 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q751 | 8-729-111-55 | TRANSISTOR | 2SC1509 |

MA-125 BOARD

| | | | |
|---|---|---|---|
| D201 | E-3 | Q201 | F-4 |
| D202 | H-1 | Q202 | D-2 |
| D203 | H-1 | Q203 | G-3 |
| D206 | A-1 | Q204 | D-4 |
| D207 | E-1 | Q205 | D-4 |
| D208 | E-1 | Q206 | I-2 |
| D209 | F-3 | Q207 | I-1 |
| D210 | F-3 | Q210 | H-1 |
| D220 | I-2 | Q220 | I-1 |
| D250 | E-1 | Q301 | A-4 |
| D301 | C-3 | Q302 | C-3 |
| D302 | D-3 | Q401 | E-12 |
| D404 | E-10 | Q402 | E-12 |
| D501 | F-10 | Q501 | F-10 |
| D505 | G-10 | Q502 | G-10 |
| D701 | J-5 | Q503 | F-13 |
| | | Q710 | I-9 |
| IC101 | I-11 | Q711 | I-10 |
| IC201 | F-4 | Q712 | I-9 |
| IC301 | C-2 | Q726 | J-7 |
| IC401 | E-11 | Q751 | J-5 |
| IC402 | E-10 | | |
| IC404 | E-6 | | |
| IC501 | G-11 | | |

**MA-125** BOARD



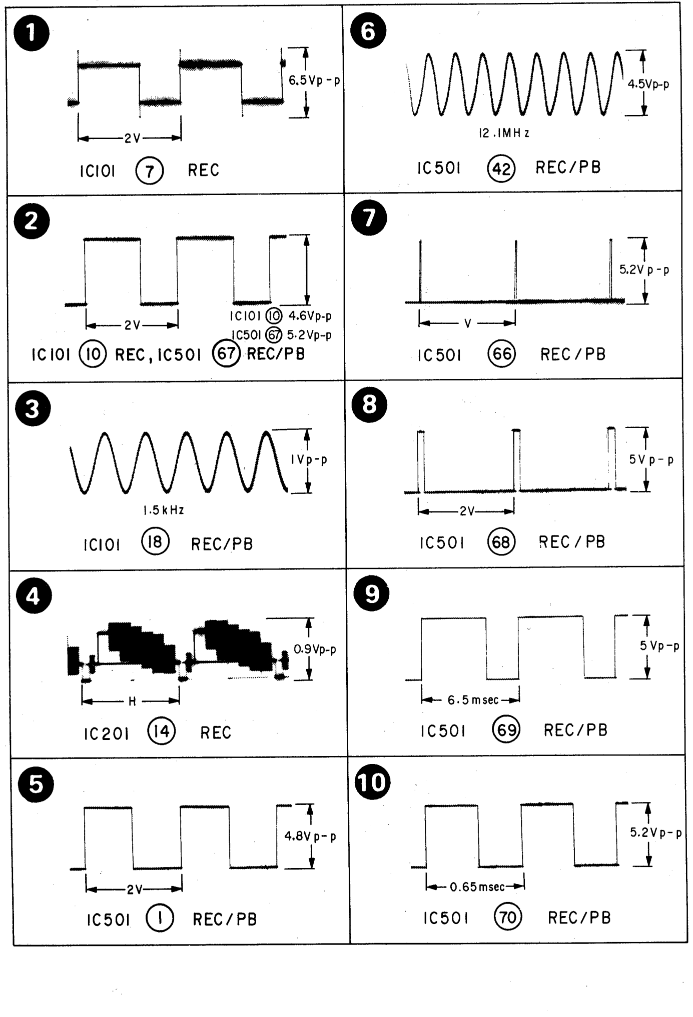
**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | ➡ | | ➡≫ | ➡ |
| PB | ⇨ | | ⇨≫ | ⇨ |

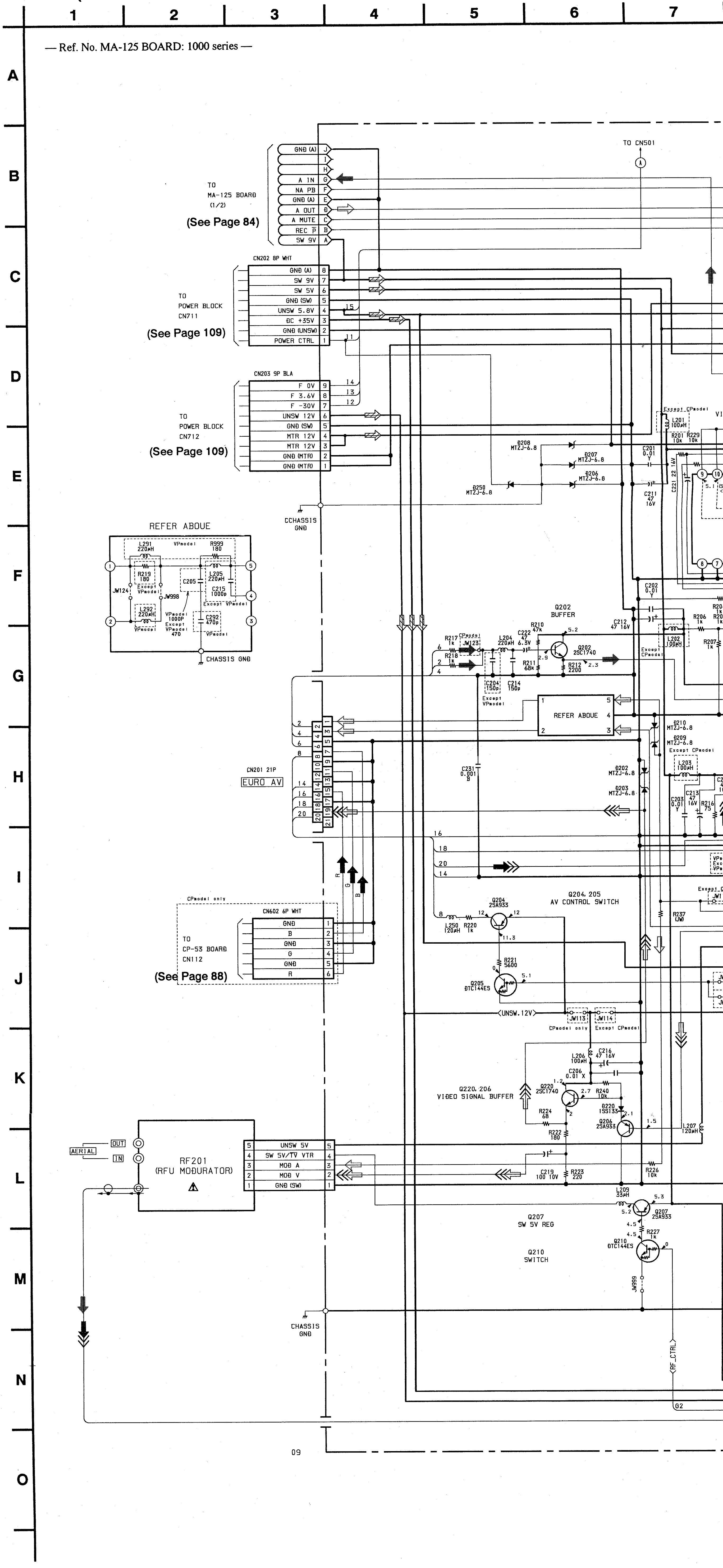
| | REC | REC/PB | PB |
|---|---|---|---|
| Drum speed servo | | ▷ | |
| Drum phase servo | | ▶ | |
| Drum servo (speed and phase) | | ▶≫ | |
| Capstan speed servo | | ➢ | |
| Capstan phase servo | ➤≫ | ➢≫ | ▷≫ |
| Capstan servo (speed and phase) | | ➢≫≫ | |
| Ref. signal | ➤ | | ▷ |

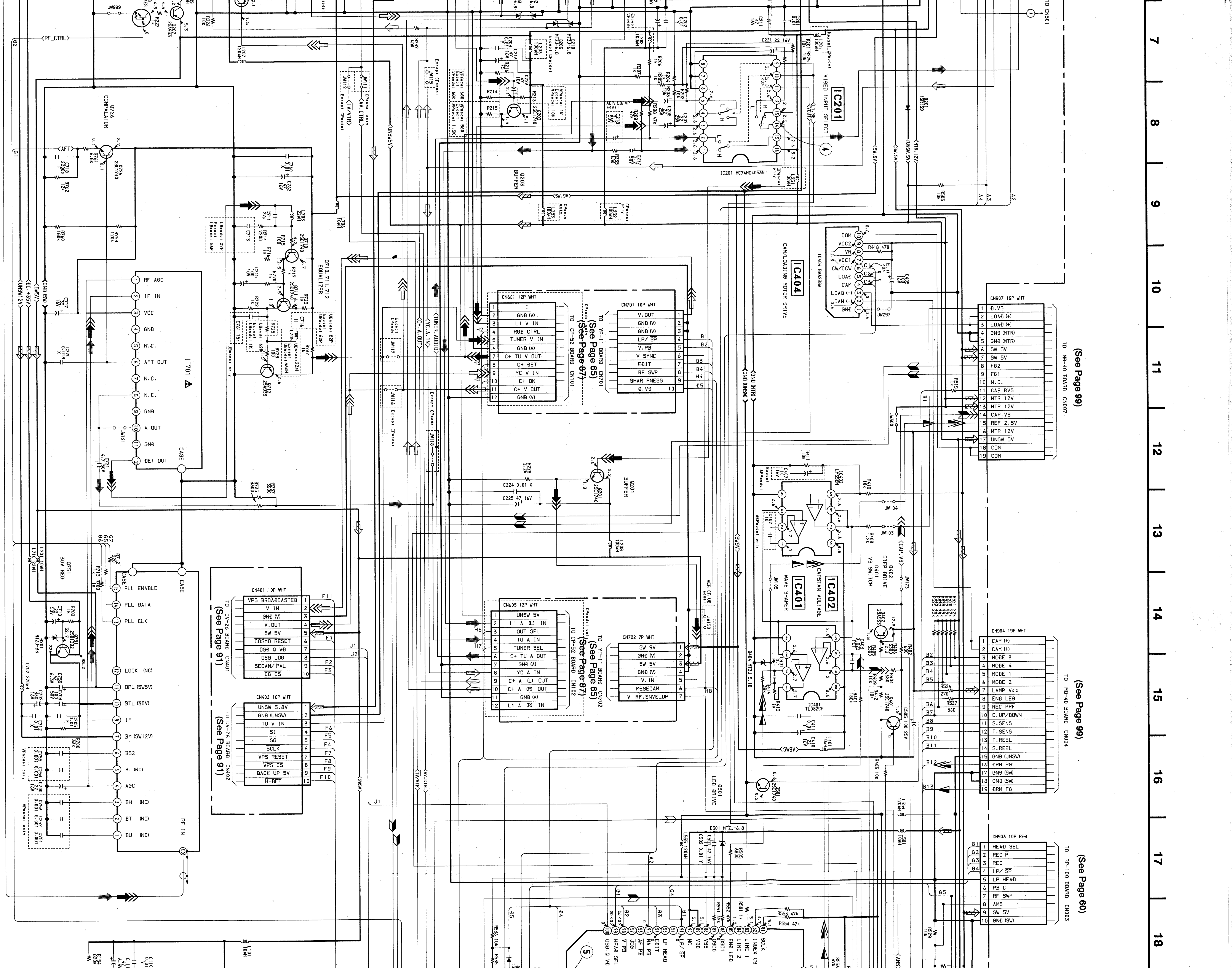
**MA-125**BOARD



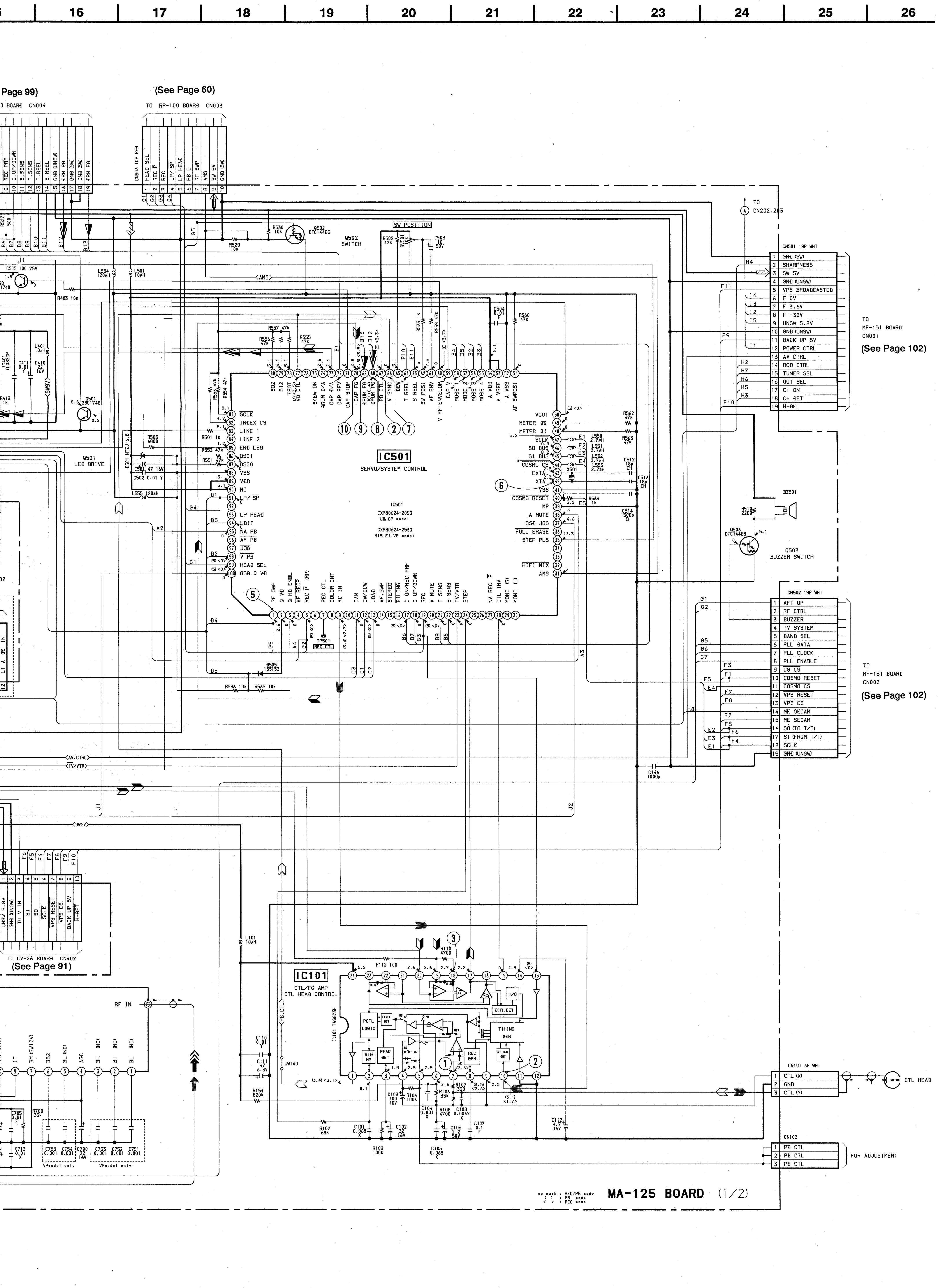
## MA-125 (SERVO/SYSTEM CONTROL/TUNER) SCHEMATIC DIAGRAM

— Ref. No. MA-125 BOARD: 1000 series —


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO MA-125 BOARD (1/2)
(See Page 84)
GND (A)
A IN
NA PB
GND (A)
A OUT
A MUTE
REC P
SW 9V
CN202 8P WHT
TO POWER BLOCK CN711
(See Page 109)
GND (A)
SW 9V
SW 5V
GND (SW)
UNSW 5.8V
DC +35V
GND (UNSW)
POWER CTRL
CN203 9P BLA
TO POWER BLOCK CN712
(See Page 109)
F 0V
F 3.6V
F -30V
UNSW 12V
GND (SW)
MTR 12V
MTR 12V
GND (MTR)
GND (MTR)
CCHASSIS GND
REFER ABOUE
L291 220μH
R999 180
R219 180
L205 220μH
C205
C215 1000p
JW124
JW998
L292 220μH
C292 470p
CHASSIS GND
TO CN501
CN201 21P
EURO AV
CN602 6P WHT
CPmodel only
TO CP-53 BOARD CN112
(See Page 88)
GND
B
GND
G
GND
R
Q202 BUFFER
2SC1740
REFER ABOUE
Q204, 205 AV CONTROL SWITCH
Q204 2SA933
Q205 DTC144ES
<UNSW.12V>
Q220, 206 VIDEO SIGNAL BUFFER
Q220 2SC1740
Q206 2SA933
AERIAL
OUT
IN
RF201 (RFU MODURATOR)
UNSW 5V
SW 5V/TV VTR
MOD A
MOD V
GND (SW)
Q207 SW 5V REG
Q207 2SA933
Q210 SWITCH
Q210 DTC144ES
JW999
<RF_CTRL>
CHASSIS GND
09

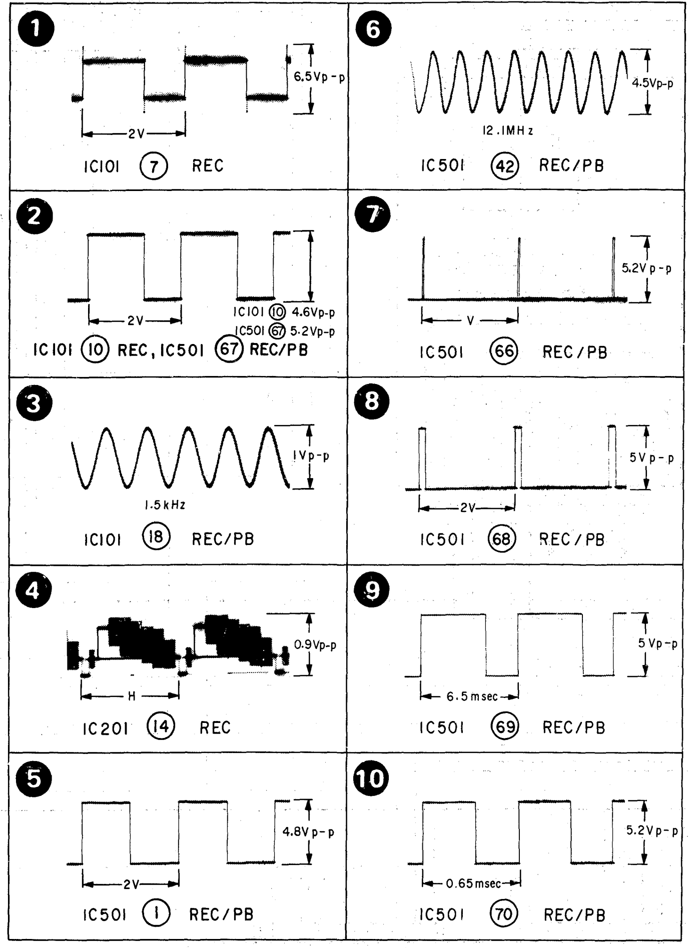


IC201
VIDEO INPUT SELECT
IC201 MC74HC4053N
IC404
CAM/LOADING MOTOR DRIVE
IC404 BA6238A
IC402
CAPSTAN VOLTAGE
IC401
WAVE SHAPER
IC401 TL082CP
Q402 STEP DRIVE
Q401 VS SWITCH
Q501 LED DRIVE
Q201 BUFFER
Q203 BUFFER
Q726 COMPALATOR
Q710, 711, 712 EQUALIZER
Q751 30V REG
IF701
RF AGC
IF IN
VCC
GND
N.C.
AFT OUT
A OUT
DET OUT
CASE
PLL ENABLE
PLL DATA
PLL CLK
LOCK (NC)
BPL (SW5V)
BTL (30V)
IF
BM (SW12V)
BS2
BL (NC)
AGC
BH (NC)
BT (NC)
BU (NC)
RF IN
CN601 12P WHT
TO CP-52 BOARD CN101
(See Page 87)
CN701 10P WHT
TO YP-11 BOARD CN701
(See Page 65)
CN603 12P WHT
TO CP-52 BOARD CN102
(See Page 87)
CN702 7P WHT
TO YP-11 BOARD CN702
(See Page 65)
CN401 10P WHT
TO CV-26 BOARD CN401
(See Page 91)
CN402 10P WHT
TO CV-26 BOARD CN402
(See Page 91)
CN907 19P WHT
TO MD-40 BOARD CN007
(See Page 99)
CN904 19P WHT
TO MD-40 BOARD CN004
(See Page 99)
CN903 10P RED
TO RP-100 BOARD CN003
(See Page 60)
TO CN501
7
8
9
10
11
12
13
14
15
16
17
18


16
17
18
19
20
21
22
23
24
25
26
Page 99)
O BOARD CN004
(See Page 60)
TO RP-100 BOARD CN003
CN903 10P RED
1 HEAD SEL
2 REC P
3 REC
4 LP/ SP
5 LP HEAD
6 PB C
7 RF SWP
8 AMS
9 SW 5V
10 GND (SW)
9 REC PRF
10 C.UP/DOWN
11 S.SENS
12 T.SENS
13 T.REEL
14 S.REEL
15 GND (UNSW)
16 DRM PG
17 GND (SW)
18 GND (SW)
19 DRM FG
Q502 DTC144ES
Q502 SWITCH
SW POSITION
Q501 2SC1740
Q501 LED DRIVE
D501 MTZJ-6.8
IC401 TL082CP
IC501
SERVO/SYSTEM CONTROL
IC501
CXP80624-209Q
UB, CP model
CXP80624-253Q
315, EI, VP model
SCLK
INDEX CS
LINE 1
LINE 2
END LED
OSC1
OSCO
VSS
VDD
NC
LP/ SP
LP HEAD
EDIT
NA PB
AF PB
JOG
V PB
HEAD SEL
OSD Q VD
RF SWP
Q VD
Q HD ENBL
AF RECP
REC P (RP)
REC CTL
COLOR CNT
RC IN
CAM
CW/CCW
LOAD
AF.SWP
STEREO
BILING
C ON/REC PRF
C UP/DOWN
REC
V MUTE
T SENS
S SENS
TV/VTR
STEP
NA REC P
CTL INV
MONI (R)
MONI (L)
AMS
HIFI MIX
STEP PLS
FULL ERASE
OSD JOG
A MUTE
MP
COSMO RESET
VSS
XTAL
EXTAL
COSMO CS
S1 BUS
SO BUS
SCLK
METER (L)
METER (R)
VCUT
AF SWPOSI
A VSS
A VREF
A VDD
MODE
CAP V
V RF ENVELOP
AF ENV
SW POSI
S REEL
T REEL
DEW
V SYNC
PB CTL
DRUM PG
DRUM FG
CAP FG
CAP STOP
CAP REV
CAP D/A
DRUM D/A
SKEW ON
VD CTL
TEST
S12
SO2
TPS01 REC CTL
BZ501
Q503 DTC144ES
Q503 BUZZER SWITCH
TO
CN202.2&3
CN501 19P WHT
1 GND (SW)
2 SHARPNESS
3 SW 5V
4 GND (UNSW)
5 VPS BROADCASTED
6 F 0V
7 F 3.6V
8 F -30V
9 UNSW 5.8V
10 GND (UNSW)
11 BACK UP 5V
12 POWER CTRL
13 AV CTRL
14 RGB CTRL
15 TUNER SEL
16 OUT SEL
17 C+ ON
18 C+ DET
19 H-DET
TO
MF-151 BOARD
CN001
(See Page 102)
CN502 19P WHT
1 AFT UP
2 RF CTRL
3 BUZZER
4 TV SYSTEM
5 BAND SEL
6 PLL DATA
7 PLL CLOCK
8 PLL ENABLE
9 CG CS
10 COSMO RESET
11 COSMO CS
12 VPS RESET
13 VPS CS
14 ME SECAM
15 ME SECAM
16 SO (TO T/T)
17 S1 (FROM T/T)
18 SCLK
19 GND (UNSW)
TO
MF-151 BOARD
CN002
(See Page 102)
UNSW 5.8V
GND (UNSW)
TU V IN
S1
SO
SCLK
VPS RESET
VPS CS
BACK UP 5V
H-DET
TO CV-26 BOARD CN402
(See Page 91)
RF IN
IF
BM (SW12V)
BS2
BL (NC)
AGC
BH (NC)
BT (NC)
BU (NC)
VPmodel only
VPmodel only
IC101
CTL/FG AMP
CTL HEAD CONTROL
IC101 TA8823N
PCTL LOGIC
RTO MM
PEAK DET
REC GEN
TIMING GEN
DIR.DET
<PB.CTL>
<AV.CTRL>
<TV/VTR>
<SW5V>
<AMS>
<SW9V>
CN101 3P WHT
1 CTL (X)
2 GND
3 CTL (Y)
CTL HEAD
CN102
1 PB CTL
2 PB CTL
3 PB CTL
FOR ADJUSTMENT
no mark : REC/PB mode
( ) : PB mode
< > : REC mode

**MA-125 BOARD** (1/2)

## MA-125BOARD



〈 DIODE 〉

| | | | |
|---|---|---|---|
| D201 | 8-719-974-59 | DIODE | 1SR139-100 |
| D202 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D203 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D206 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D207 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D208 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D209 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D210 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D220 | 8-719-987-06 | DIODE | WG713A |
| D220 | 8-719-911-19 | DIODE | 1SS119 |
| D250 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D301 | 8-719-987-06 | DIODE | WG713A |
| D301 | 8-719-911-19 | DIODE | 1SS119 |
| D302 | 8-719-987-06 | DIODE | WG713A (EXCEPT EI |
| D404 | 8-719-109-85 | DIODE | RD5.1ES-B2 |
| D501 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D505 | 8-719-987-06 | DIODE | WG713A |
| D505 | 8-719-911-19 | DIODE | 1SS119 |
| D701 | 8-719-982-26 | DIODE | MTZJ-33B |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC101 | 8-759-246-14 | IC | TA8823N |
| IC201 | 8-759-007-21 | IC | MC74HC4053N |
| IC301 | 8-759-805-20 | IC | LA7297 |
| IC401 | 8-759-503-91 | IC | TL082ACP |
| IC402 | 8-759-008-70 | IC | LM358N |
| IC404 | 8-759-983-45 | IC | BA6238A |
| IC501 | 8-752-817-87 | IC | CXP80624-209Q (CP, UB |
| IC501 | 8-752-832-90 | IC | CXP80624-253Q (AEP, EI, VP |

〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q201 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q202 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q203 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q204 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q205 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q206 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q207 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q210 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q220 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q301 | 8-729-111-55 | TRANSISTOR | 2SC1509 |
| Q302 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q401 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q402 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q501 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q502 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q503 | 8-729-900-89 | TRANSISTOR | DTC144ES |
| Q710 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q711 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q712 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q726 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q751 | 8-729-111-55 | TRANSISTOR | 2SC1509 |

〈 DIODE 〉

| | | |
|---|---|---|
| 8-719-974-59 | DIODE | 1SR139-100 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-987-06 | DIODE | WG713A |
| 8-719-911-19 | DIODE | 1SS119 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-987-06 | DIODE | WG713A |
| 8-719-911-19 | DIODE | 1SS119 |
| 8-719-987-06 | DIODE | WG713A (EXCEPT EI MODEL) |
| 8-719-109-85 | DIODE | RD5. 1ES-B2 |
| 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| 8-719-987-06 | DIODE | WG713A |
| 8-719-911-19 | DIODE | 1SS119 |
| 8-719-982-26 | DIODE | MTZJ-33B |

〈 IC 〉

| | | |
|---|---|---|
| 8-759-246-14 | IC | TA8823N |
| 8-759-007-21 | IC | MC74HC4053N |
| 8-759-805-20 | IC | LA7297 |
| 8-759-503-91 | IC | TL082ACP |
| 8-759-008-70 | IC | LM358N |
| 8-759-983-45 | IC | BA6238A |
| 8-752-817-87 | IC | CXP80624-209Q (CP, UB MODEL) |
| 8-752-832-90 | IC | CXP80624-253Q (AEP, EI, VP MODEL) |

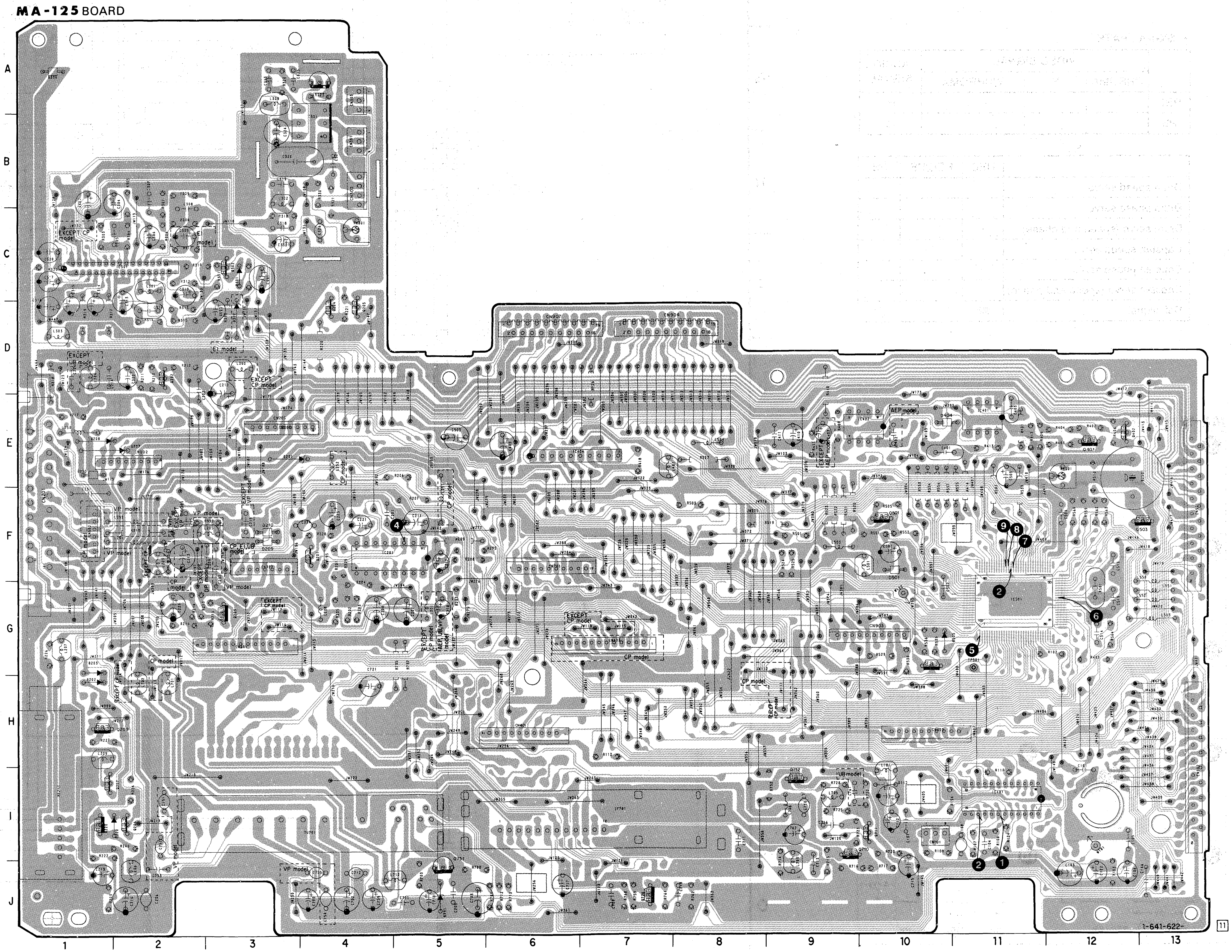
〈 TRANSISTOR 〉

| | | |
|---|---|---|
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| 8-729-900-89 | TRANSISTOR | DTC144ES |
| 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| 8-729-900-89 | TRANSISTOR | DTC144ES |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-111-55 | TRANSISTOR | 2SC1509 |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-900-89 | TRANSISTOR | DTC144ES |
| 8-729-900-89 | TRANSISTOR | DTC144ES |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| 8-729-111-55 | TRANSISTOR | 2SC1509 |

## MA-125 (SERVO/SYSTEM CONTROL/TUNER, AUDIO) PRINTED WIRING BOARD

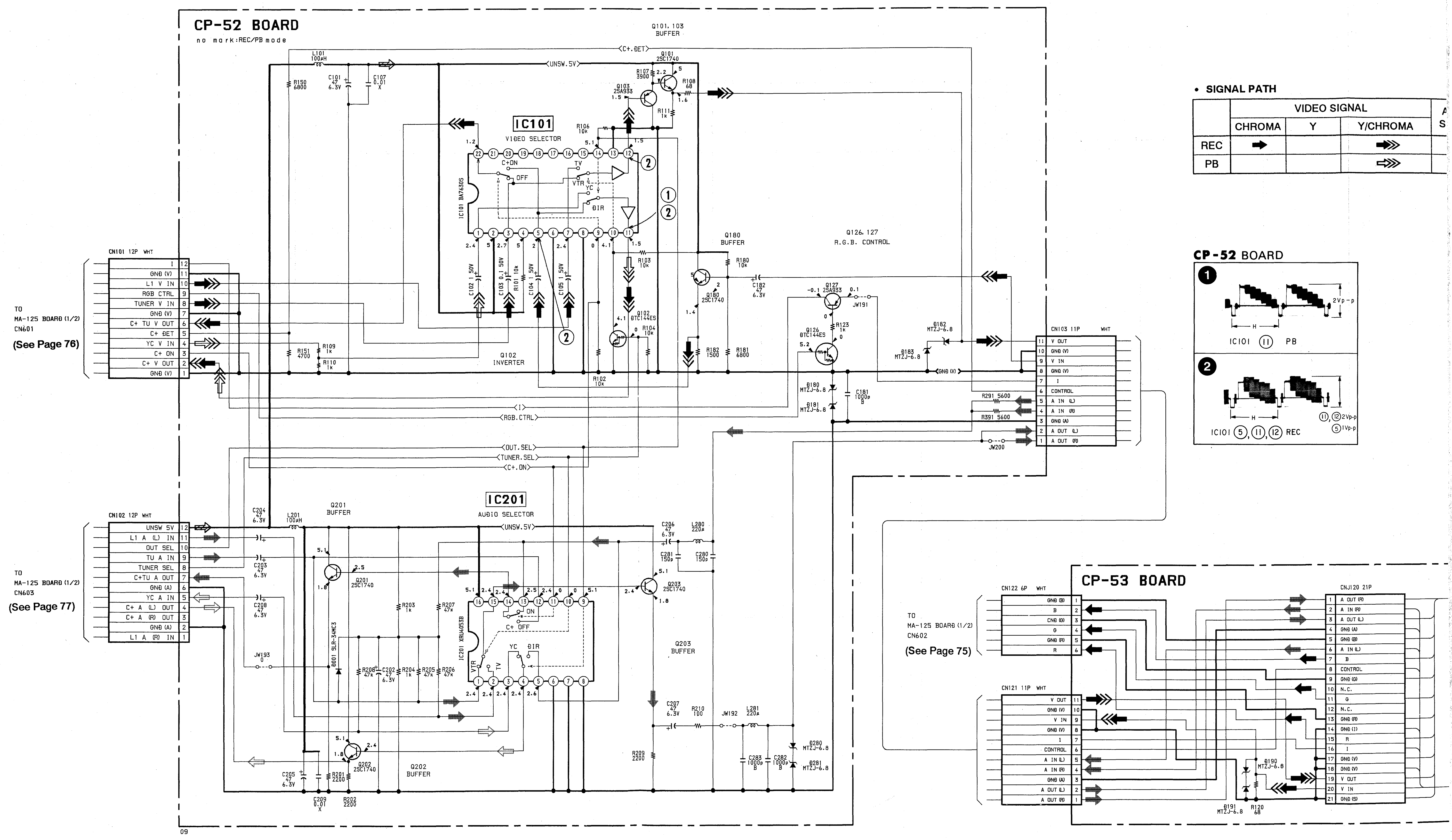
— Ref. No. MA-125 BOARD: 1000 series —

| MA-125 BOARD | |
|---|---|
| D201 | E-3 |
| D202 | H-1 |
| D203 | H-1 |
| D206 | A-1 |
| D207 | E-1 |
| D208 | E-1 |
| D209 | F-3 |
| D210 | F-3 |
| D220 | I-2 |
| D250 | E-1 |
| D301 | C-3 |
| D302 | D-3 |
| D404 | E-10 |
| D501 | F-10 |
| D505 | G-10 |
| D701 | J-5 |
| IC101 | I-11 |
| IC201 | F-4 |
| IC301 | C-2 |
| IC401 | E-11 |
| IC402 | E-10 |
| IC404 | E-6 |
| IC501 | G-11 |
| Q201 | F-4 |
| Q202 | D-2 |
| Q203 | G-3 |
| Q204 | D-4 |
| Q205 | D-4 |
| Q206 | I-2 |
| Q207 | I-1 |
| Q210 | H-1 |
| Q220 | I-1 |
| Q301 | A-4 |
| Q302 | C-3 |
| Q401 | E-12 |
| Q402 | E-12 |
| Q501 | F-10 |
| Q502 | G-10 |
| Q503 | F-13 |
| Q710 | I-9 |
| Q711 | I-10 |
| Q712 | I-9 |
| Q726 | J-7 |
| Q751 | J-5 |



## CP-52 (VIDEO/AUDIO SELECTOR), CP-53 (CANAL PLUS JACK) SCHEMATIC DIAGRAMS

— Ref. No. CP-52 BOARD: 2000 series, CP-53 BOARD: 3000 series —


1
2
3
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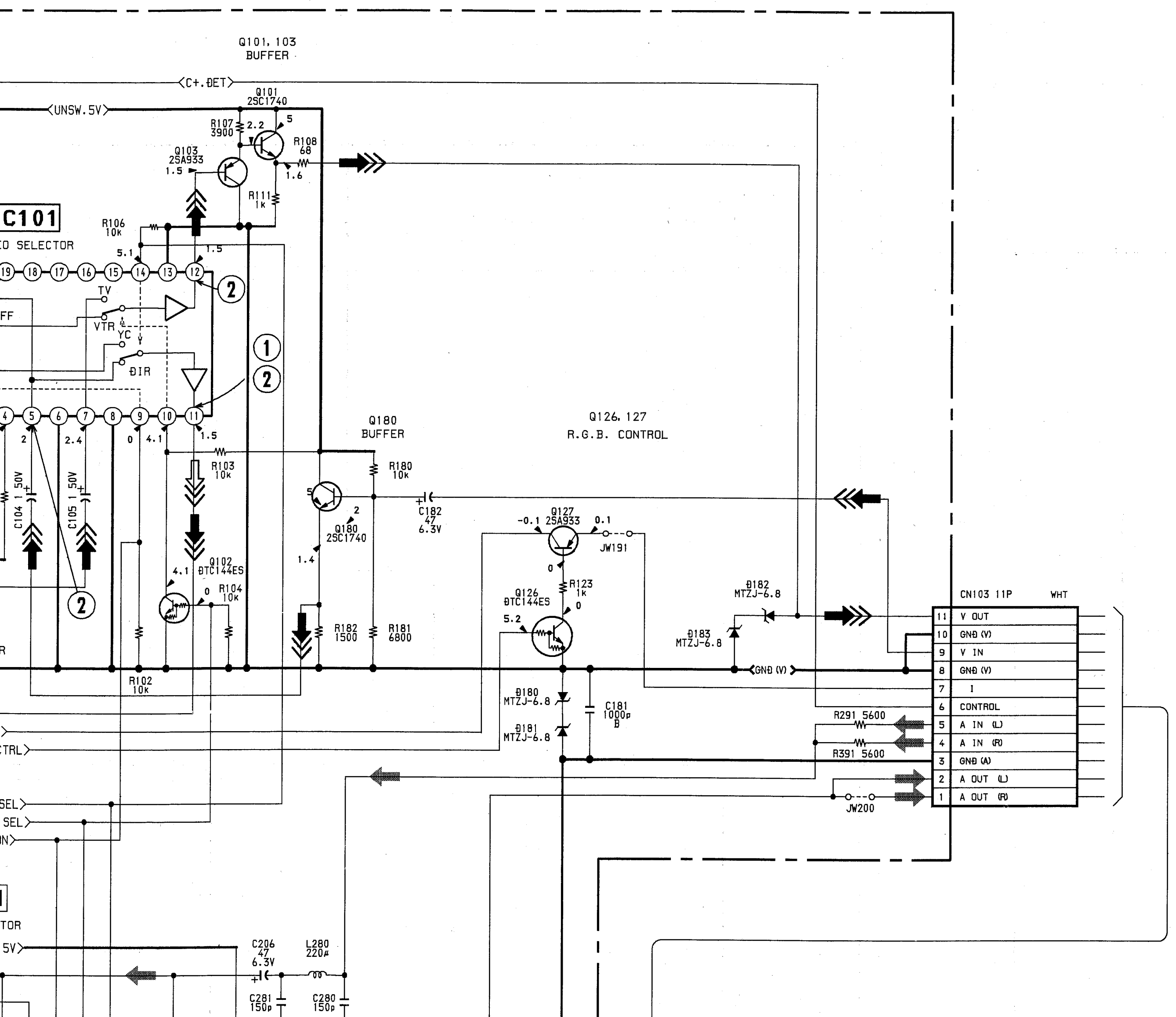
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
CP-52 BOARD
no mark:REC/PB mode
Q101, 103
BUFFER
IC101
VIDEO SELECTOR
IC101 BA7630S
C+ON
OFF
TV
VTR
YC
DIR
Q180
BUFFER
Q126, 127
R.G.B. CONTROL
Q102
INVERTER
CN101 12P WHT
TO
MA-125 BOARD (1/2)
CN601
(See Page 76)
I
GND (V)
L1 V IN
RGB CTRL
TUNER V IN
C+ TU V OUT
C+ DET
YC V IN
C+ ON
C+ V OUT
CN102 12P WHT
TO
MA-125 BOARD (1/2)
CN603
(See Page 77)
UNSW 5V
L1 A (L) IN
OUT SEL
TU A IN
TUNER SEL
C+TU A OUT
GND (A)
YC A IN
C+ A (L) OUT
C+ A (R) OUT
L1 A (R) IN
IC201
AUDIO SELECTOR
IC201 XRU4053B
Q201
BUFFER
Q202
BUFFER
Q203
BUFFER
CN103 11P WHT
V OUT
V IN
CONTROL
A IN (L)
A IN (R)
A OUT (L)
A OUT (R)
<UNSW.5V>
<C+.DET>
<I>
<RGB.CTRL>
<OUT.SEL>
<TUNER.SEL>
<C+.ON>
CP-53 BOARD
CN122 6P WHT
TO
MA-125 BOARD (1/2)
CN602
(See Page 75)
CN121 11P WHT
CNJ120 21P
CP-52 BOARD
❶
IC101 ⑪ PB
2Vp-p
H
❷
IC101 ⑤,⑪,⑫ REC
⑪,⑫2Vp-p
⑤1Vp-p

- **SIGNAL PATH**

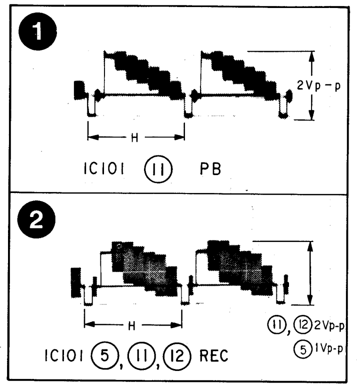
| | VIDEO SIGNAL | | |
|---|---|---|---|
| | CHROMA | Y | Y/CHROMA |
| REC | ➡ | | ⇛ |
| PB | | | ⇨ |

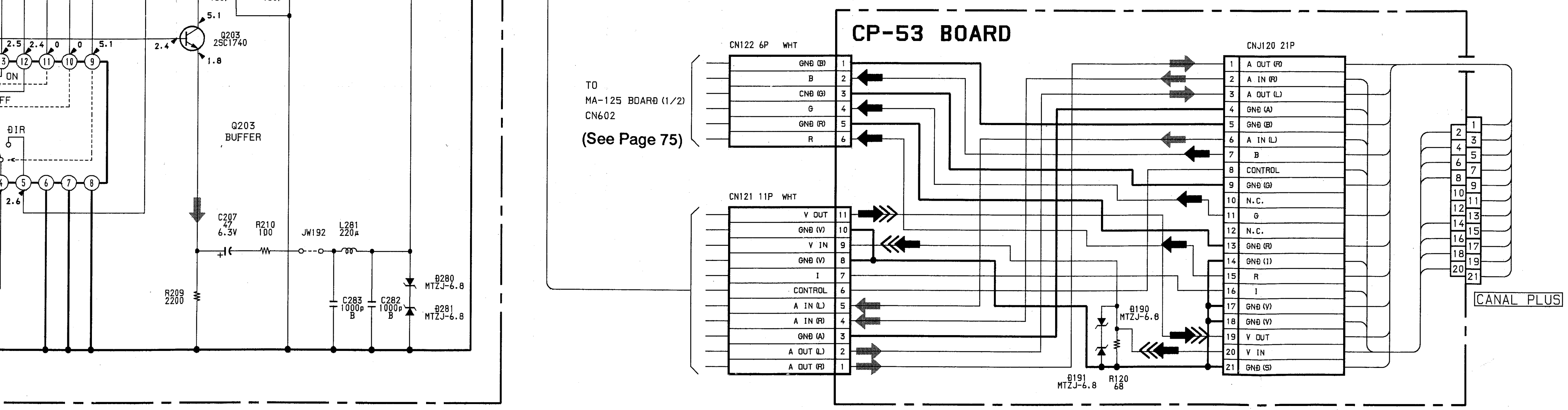

Q101, 103
BUFFER
C+.8ET
UNSW.5V
Q101
2SC1740
R107
3900
R108
68
Q103
2SA933
R111
1k
IC101
R106
10k
VIDEO SELECTOR
TV
VTR
YC
ØIR
①
②
Q180
BUFFER
Q126, 127
R.G.B. CONTROL
R180
10k
C182
47
6.3V
Q180
2SC1740
Q127
2SA933
JW191
R123
1k
Q126
DTC144ES
Q102
DTC144ES
R104
10k
R103
10k
C104
C105
50V
R182
1500
R181
6800
R102
10k
D182
MTZJ-6.8
D183
MTZJ-6.8
GND (V)
D180
MTZJ-6.8
D181
MTZJ-6.8
C181
1000p
B
R291 5600
R391 5600
JW200
CN103 11P WHT
11 V OUT
10 GND (V)
9 V IN
8 GND (V)
7 I
6 CONTROL
5 A IN (L)
4 A IN (R)
3 GND (A)
2 A OUT (L)
1 A OUT (R)
CTRL
SEL
SEL
IN

- SIGNAL PATH

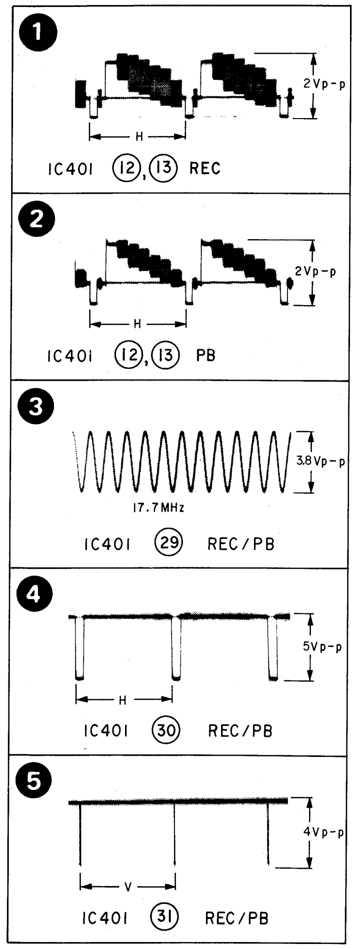
|  | VIDEO SIGNAL |  |  | AUDIO SIGNAL |
|---|---|---|---|---|
|  | CHROMA | Y | Y/CHROMA |  |
| REC | ➡ |  | ➡≫ | ➡ |
| PB |  |  | ⇨≫ | ⇨ |

**CP-52** BOARD


❶
2Vp-p
H
IC101 ⑪ PB
❷
H
⑪, ⑫ 2Vp-p
⑤ 1Vp-p
IC101 ⑤, ⑪, ⑫ REC


TOR
5V
C206
47
6.3V
L280
220μ
C281
150p
C280
150p
Q203
2SC1740
Q203
BUFFER
ON
ØIR
C207
47
6.3V
R210
100
JW192
L281
220μ
R209
2200
C283
1000p
B
C282
1000p
B
D280
MTZJ-6.8
D281
MTZJ-6.8
CP-53 BOARD
CN122 6P WHT
GND (B) 1
B 2
GND (G) 3
G 4
GND (R) 5
R 6
TO
MA-125 BOARD (1/2)
CN602
(See Page 75)
CN121 11P WHT
V OUT 11
GND (V) 10
V IN 9
GND (V) 8
I 7
CONTROL 6
A IN (L) 5
A IN (R) 4
GND (A) 3
A OUT (L) 2
A OUT (R) 1
CNJ120 21P
1 A OUT (R)
2 A IN (R)
3 A OUT (L)
4 GND (A)
5 GND (B)
6 A IN (L)
7 B
8 CONTROL
9 GND (G)
10 N.C.
11 G
12 N.C.
13 GND (R)
14 GND (I)
15 R
16 I
17 GND (V)
18 GND (V)
19 V OUT
20 V IN
21 GND (S)
D190
MTZJ-6.8
D191
MTZJ-6.8
R120
68
CANAL PLUS

**CV-26** BOARD

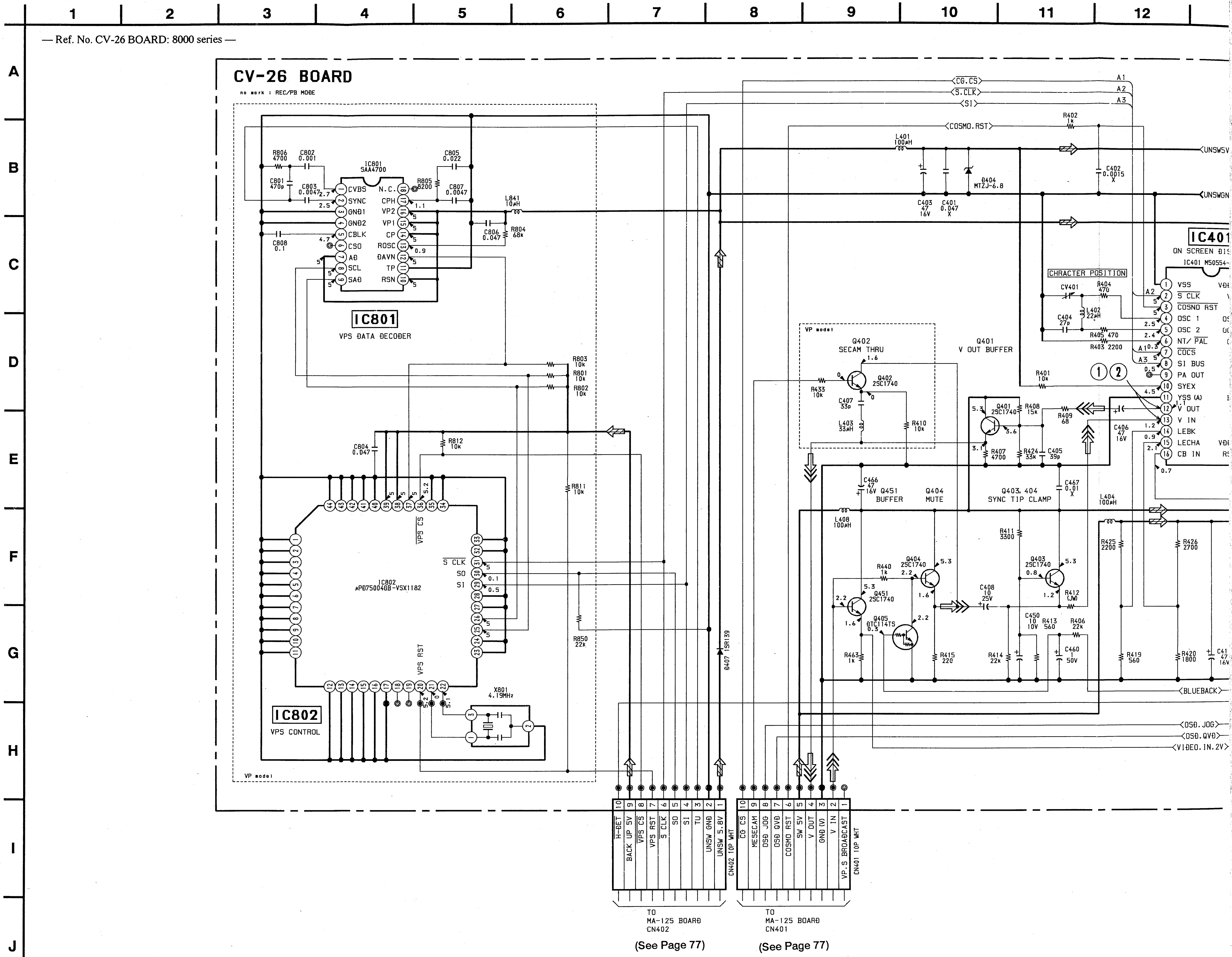


- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| REC | | | | |
| PB | | | ⇨>> | |

## CV-26 (ON SCREEN DISPLAY) SCHEMATIC DIAGRAM

— Ref. No. CV-26 BOARD: 8000 series —


1
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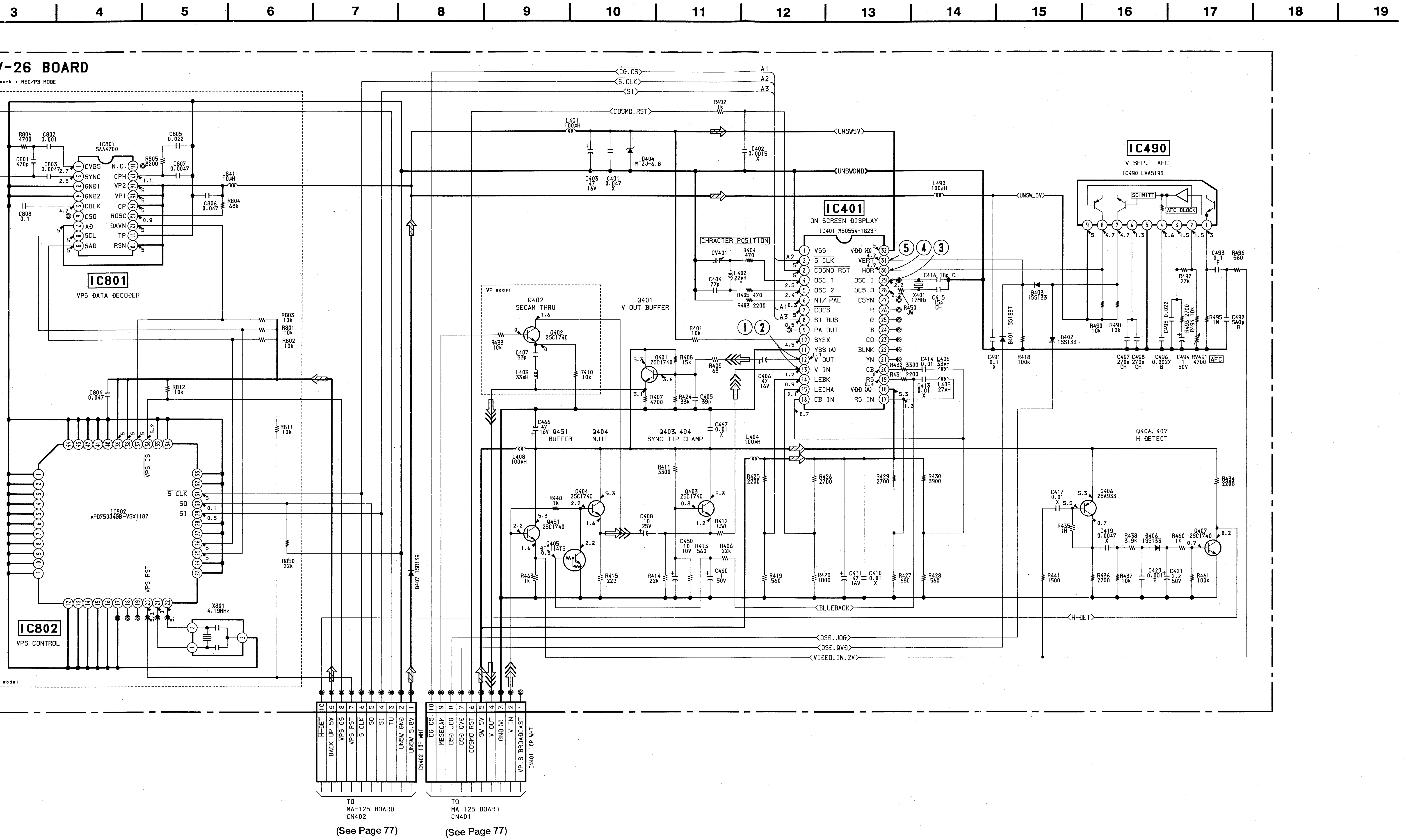
11
12
A
B
C
D
E
F
G
H
I
J
CV-26 BOARD
no mark : REC/PB MODE
IC801
SAA4700
IC801
VPS DATA DECODER
CVBS
SYNC
GND1
GND2
CBLK
CSO
AD
SCL
SAD
N.C.
CPH
VP2
VP1
CP
ROSC
DAVN
TP
RSN
R806 4700
C802 0.001
C801 470p
C803 0.0047
C805 0.022
R805 8200
C807 0.0047
C808 0.1
C806 0.047
R804 68k
L841 10μH
R803 10k
R801 10k
R802 10k
C804 0.047
R812 10k
R811 10k
R850 22k
IC802
μPD75004GB-VSX1182
IC802
VPS CONTROL
VPS CS
VPS RST
S CLK
SO
SI
X801
4.19MHz
VP model
D407 1SR139
CG.CS
S.CLK
SI
COSMO.RST
A1
A2
A3
R402 1k
L401 100μH
C403 47 16V
C401 0.047
D404 MTZJ-6.8
C402 0.0015
UNSW5V
UNSWGN
IC401
ON SCREEN DIS
IC401 M50554-
CHRACTER POSITION
CV401
R404 470
C404 27p
L402 22μH
R405 470
R403 2200
VSS
S CLK
COSMO RST
OSC 1
OSC 2
NT/ PAL
COCS
SI BUS
PA OUT
SYEX
YSS (A)
V OUT
V IN
LEBK
LECHA
CB IN
R401 10k
VP model
Q402
SECAM THRU
Q402 2SC1740
R433 10k
C407 33p
L403 33μH
R410 10k
Q401
V OUT BUFFER
Q401 2SC1740
R408 15k
R409 68
R407 4700
R424 33k
C405 39p
C406 47 16V
C466 47 16V
Q451
BUFFER
Q404
MUTE
Q403, 404
SYNC TIP CLAMP
C467 0.01
L404 100μH
L408 100μH
R411 3300
R425 2200
R426 2700
R440 1k
Q404 2SC1740
Q451 2SC1740
Q405 DTC114TS
Q403 2SC1740
R412 (JW)
C408 10 25V
C450 10 10V
R413 560
R406 22k
C460 1 50V
R463 1k
R415 220
R414 22k
R419 560
R420 1800
BLUEBACK
OSD.JOG
OSD.QVD
VIDEO.IN.2V
H-DET
BACK UP 5V
VPS CS
VPS RST
S CLK
SO
SI
TU
UNSW GND
UNSW 5.8V
CN402 10P WHT
CG CS
MESECAM
OSD JOG
OSD QVD
COSMO RST
SW 5V
V OUT
GND (V)
V IN
VP.S BROADCAST
CN401 10P WHT
TO
MA-125 BOARD
CN402
(See Page 77)
TO
MA-125 BOARD
CN401
(See Page 77)


3
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9
10
11
12
13
14
15
16
17
18
19
-26 BOARD
IC801
SAA4700
VPS DATA DECODER
IC802
μPD75004GB-VSX1182
VPS CONTROL
X801
4.19MHz
IC401
ON SCREEN DISPLAY
IC401 M50554-182SP
CHRACTER POSITION
IC490
V SEP. AFC
IC490 LVA519S
SCHMITT
AFC BLOCK
AFC
Q402
SECAM THRU
VP model
Q401
V OUT BUFFER
Q451
BUFFER
Q404
MUTE
Q403, 404
SYNC TIP CLAMP
Q406, 407
H DETECT
CG.CS
S.CLK
SI
COSMO.RST
UNSW5V
UNSWGND
UNSW_5V
BLUEBACK
H-DET
OSD.JOG
OSD.QVD
VIDEO.IN.2V
H-DET
BACK UP 5V
VPS CS
VPS RST
S CLK
SO
SI
TU
UNSW GND
UNSW 5.8V
CN402 10P WHT
CG CS
MESECAM
OSD JOG
OSD QVD
COSMO RST
SW 5V
V OUT
GND (V)
V IN
VP.S BROADCAST
CN401 10P WHT
TO
MA-125 BOARD
CN402
TO
MA-125 BOARD
CN401

(See Page 77)

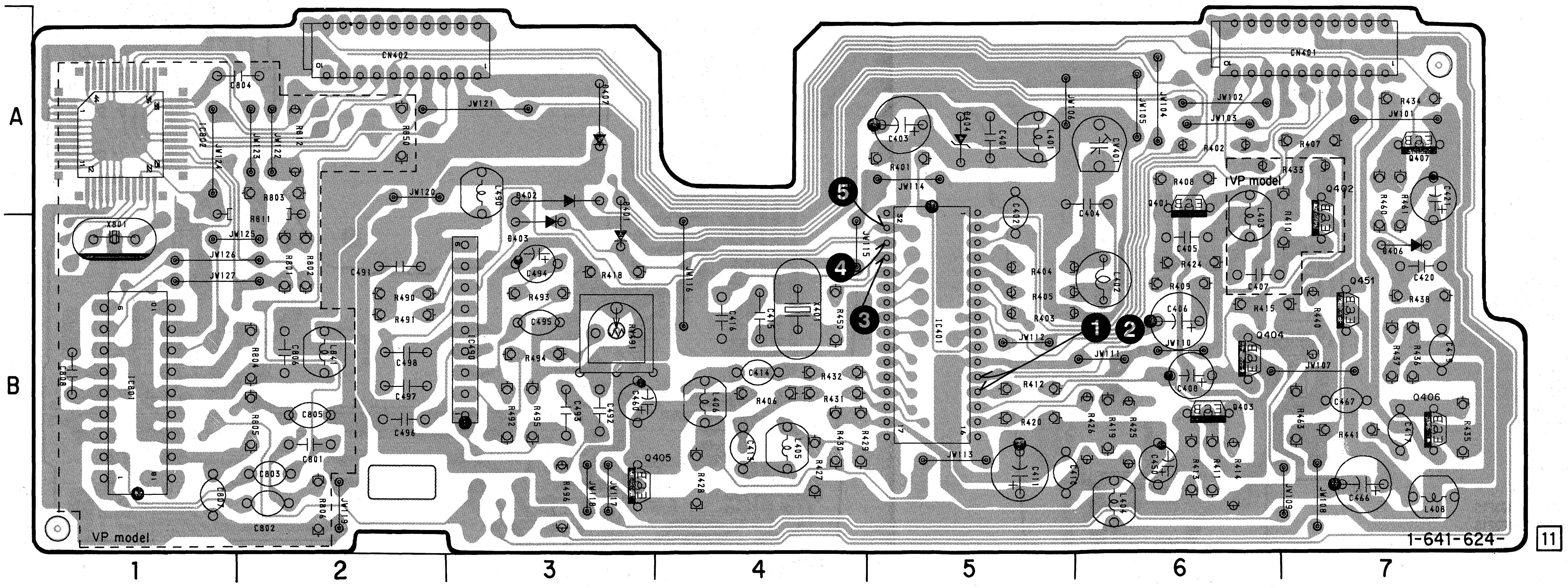
(See Page 77)

**OSD CONTROL** **OSD CONTROL**

## CV-26 (ON SCREEN DISPLAY) PRINTED WIRING BOARD

— Ref. No. CV-26 BOARD: 8000 series —

### CV-26 BOARD



| CV-26 BOARD | |
|---|---|
| D401 | B-2 |
| D402 | A-3 |
| D403 | B-3 |
| D404 | A-5 |
| D406 | B-7 |
| D407 | A-3 |
| IC401 | B-5 |
| IC490 | B-3 |
| IC801 | B-1 |
| IC802 | A-1 |
| Q401 | A-6 |
| Q402 | A-7 |
| Q403 | B-6 |
| Q404 | B-6 |
| Q405 | B-3 |
| Q406 | B-7 |
| Q407 | A-7 |
| Q451 | B-7 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D401 | 8-719-911-19 | DIODE | 1SS119 |
| D402 | 8-719-911-19 | DIODE | 1SS119 |
| D403 | 8-719-911-19 | DIODE | 1SS119 |
| D404 | 8-719-109-97 | DIODE | RD6.8ES-B2 |
| D406 | 8-719-911-19 | DIODE | 1SS119 |
| D407 | 8-719-974-59 | DIODE | 1SR139-100 |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC401 | 8-759-634-22 | IC | M50554-182SP |
| IC490 | 8-759-996-03 | IC | LVA519S |
| IC801 | 8-759-054-25 | IC | SAA4700 (VP MODEL) |
| IC802 | 8-759-147-30 | IC | uPD75004GB-VSX182 (VP MODEL) |

〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q401 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q402 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE (VP MODEL) |
| Q403 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q404 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q405 | 8-729-904-39 | TRANSISTOR | DTC114TS |
| Q406 | 8-729-119-76 | TRANSISTOR | 2SA1175-HFE |
| Q407 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |
| Q451 | 8-729-119-78 | TRANSISTOR | 2SC2785-HFE |

## MD-40 (MD DRIVE) PRINTED WIRING BOARD

— Ref. No. MD-40 BOARD: 2000 series —

| MD-40 | BOARD |
|---|---|
| D001 | D-5 |
| D004 | F-6 |
| D005 | F-5 |
| IC002 | A-5 |
| IC004 | C-8 |
| IC005 | B-8 |
| Q001 | C-1 |
| Q002 | C-9 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D001 | 8-719-985-00 | DIODE | GL451VS1 |
| D004 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D005 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |

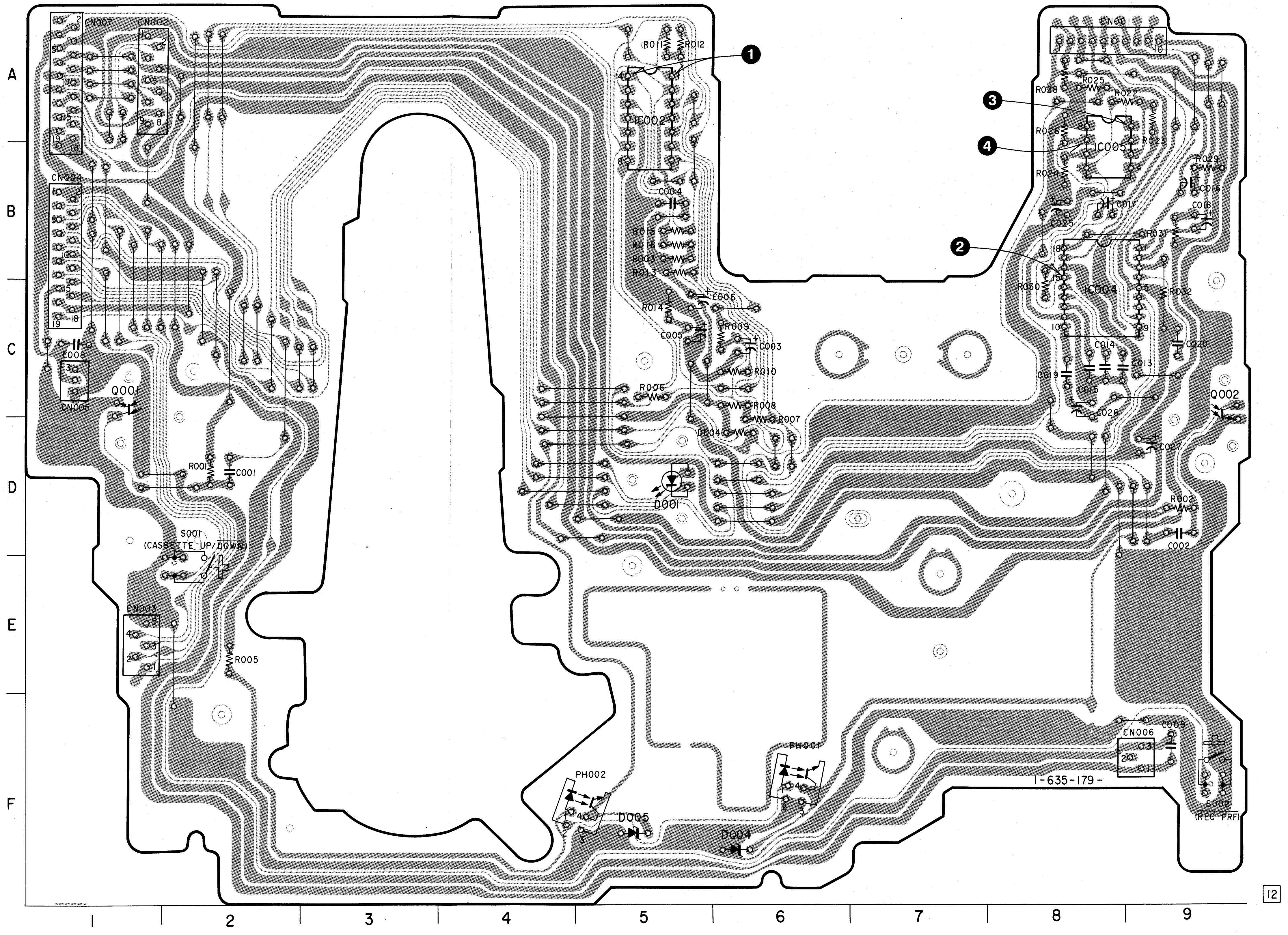
〈 IC 〉

| | | | |
|---|---|---|---|
| IC002 | 8-759-912-77 | IC | LM324N |
| IC004 | 8-759-420-83 | IC | AN3814K |
| IC005 | 8-759-987-16 | IC | LM393P |

〈 TRANSISTOR 〉

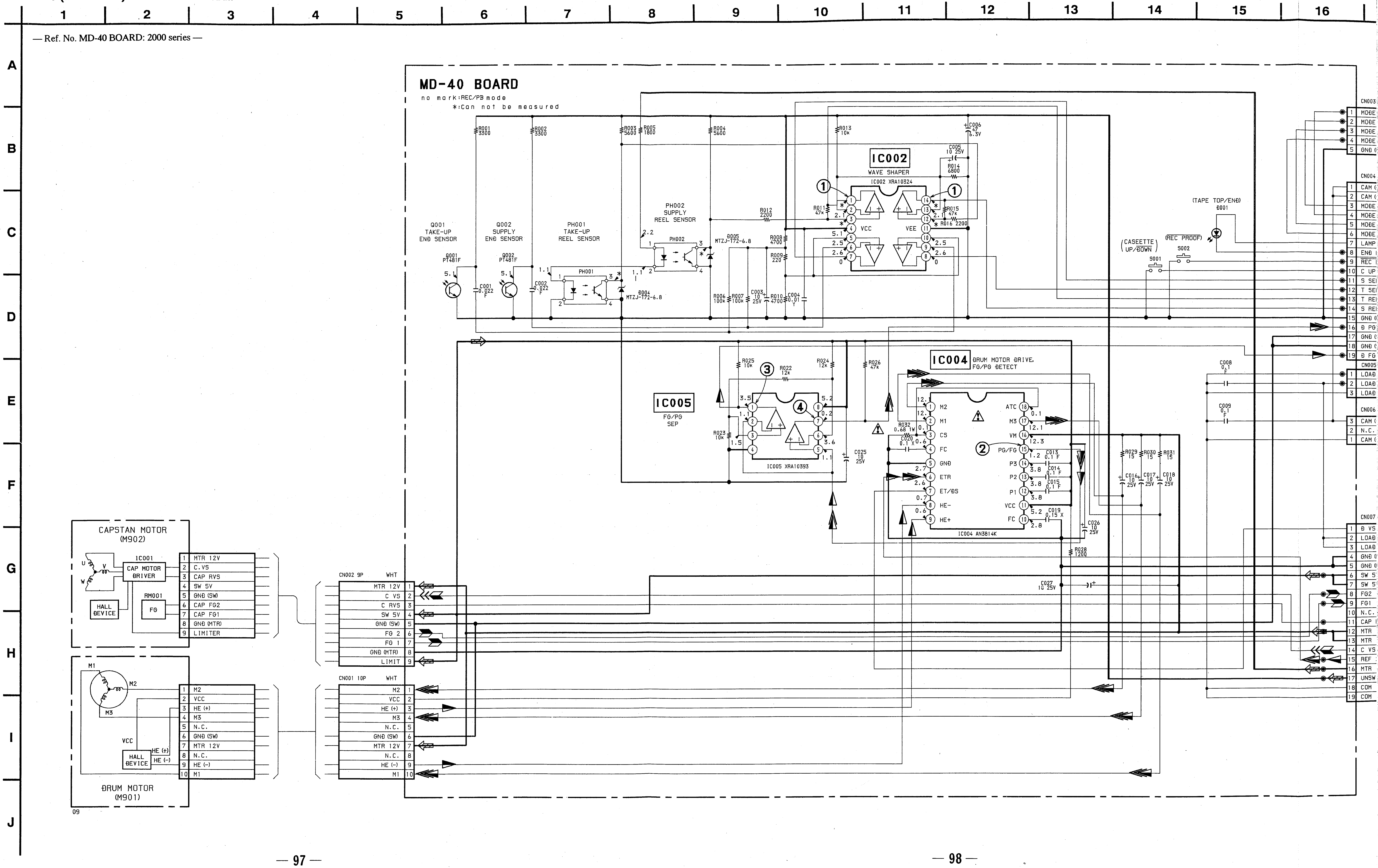
| | | | |
|---|---|---|---|
| Q001 | 8-729-926-31 | TRANSISTOR | PT483F1S |
| Q002 | 8-729-926-31 | TRANSISTOR | PT483F1S |

**MD-40** BOARD

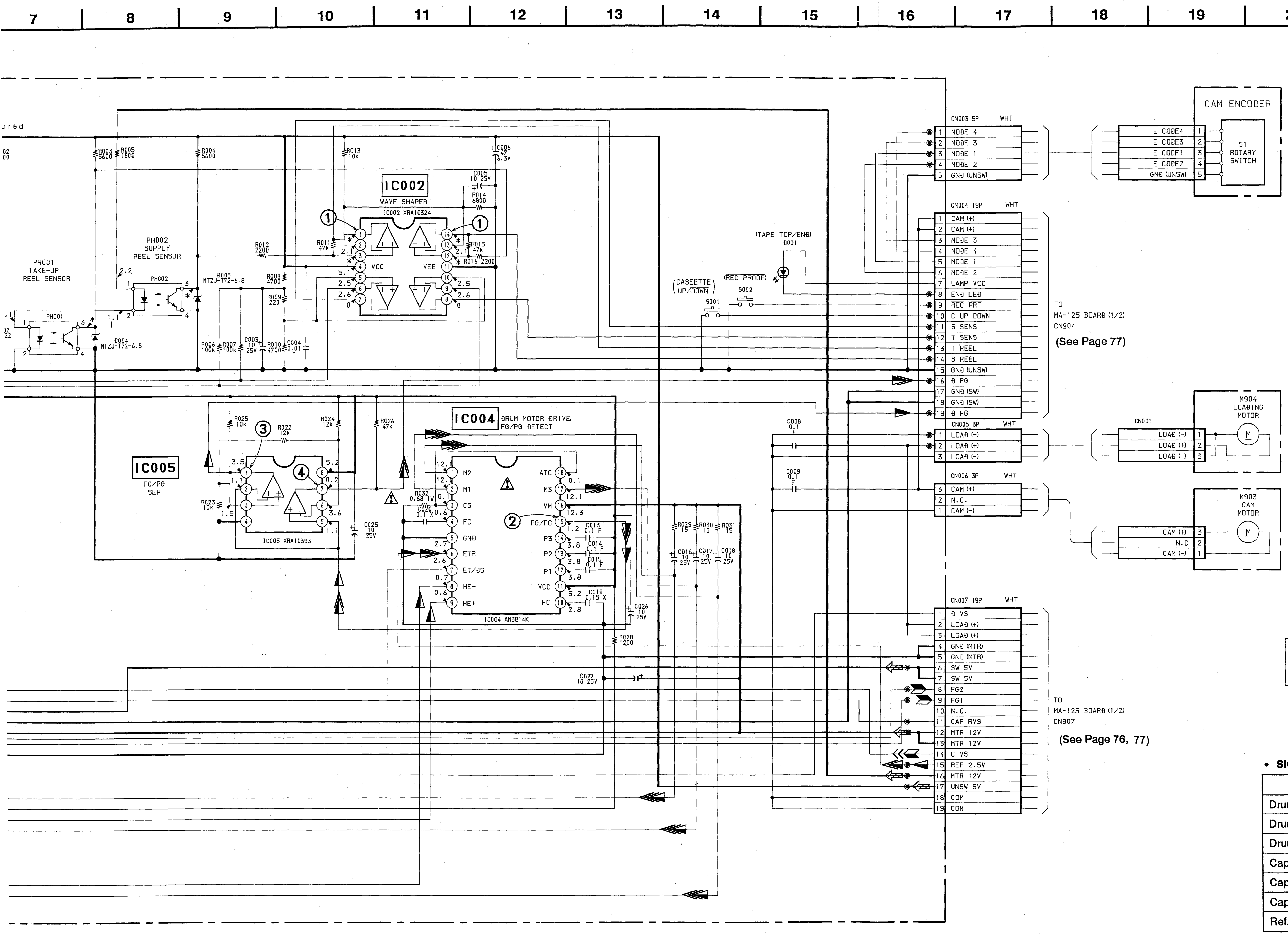

A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
CN007
CN002
CN004
CN005
C008
Q001
R001
C001
S001
(CASSETTE UP/DOWN)
CN003
R005
R011
R012
①
IC002
C004
R015
R016
R003
R013
R014
C006
C005
R009
C003
R010
R006
R008
R007
D004
D001
PH002
D005
PH001
CN001
R028
R025
R022
③
R026
④
IC005
R023
R024
R029
C016
C017
C025
C018
②
R031
R030
IC004
R032
C020
C014
C013
C019
C015
C026
C027
Q002
R002
C002
CN006
C009
S002
(REC PRF)
1-635-179-
12

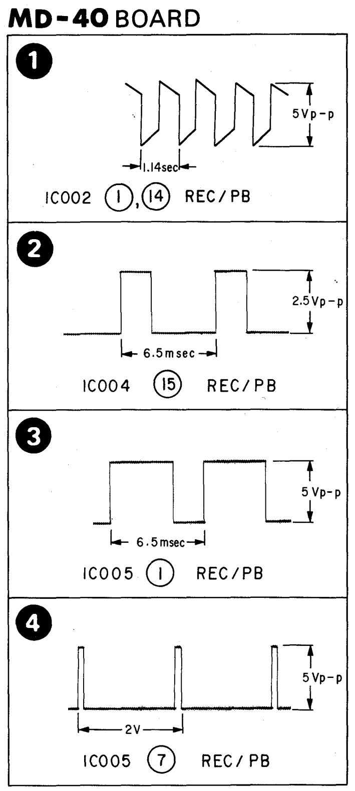
## MD-40 (MD DRIVE) SCHEMATIC DIAGRAM

— Ref. No. MD-40 BOARD: 2000 series —



MD-40 BOARD
no mark:REC/PB mode
*:Can not be measured
IC002 WAVE SHAPER
IC002 XRA10324
IC005 FG/PG SEP
IC005 XRA10393
IC004 DRUM MOTOR DRIVE, FG/PG DETECT
IC004 AN3814K
Q001 TAKE-UP END SENSOR
Q001 PT481F
Q002 SUPPLY END SENSOR
Q002 PT481F
PH001 TAKE-UP REEL SENSOR
PH002 SUPPLY REEL SENSOR
D004 MTZJ-T72-6.8
D005 MTZJ-T72-6.8
R001 3300
R002 3300
R003 5600
R005 1800
R004 5600
R013 10k
C006 47 6.3V
C005 10 25V
R014 6800
R011 47k
R015 47k
R016 2200
R012 2200
R008 4700
R009 220
R006 100k
R007 100k
C003 10 25V
R010 4700
C004 0.01
C001 0.022
C002 0.022
R025 10k
R022 12k
R024 12k
R026 47k
R023 10k
C025 10 25V
R032 0.68 1W
C020 0.1
C013 0.1
C014 0.1
C015 0.1
C019 0.15
C026 10 25V
R028 1200
R029 15
R030 15
R031 15
C016 10 25V
C017 10 25V
C018 10 25V
C027 10 25V
C008 0.1
C009 0.1
VCC
VEE
M2
M1
CS
FC
GND
ETR
ET/BS
HE-
HE+
ATC
M3
VM
PG/FG
P3
P2
P1
(TAPE TOP/END) D001
(CASEETTE UP/DOWN) S001
(REC PROOF) S002
CN003
CN004
CN005
CN006
CN007
CAPSTAN MOTOR (M902)
IC001 CAP MOTOR DRIVER
HALL DEVICE
RM001 FG
MTR 12V
C.VS
CAP RVS
SW 5V
GND (SW)
CAP FG2
CAP FG1
GND (MTR)
LIMITER
CN002 9P WHT
MTR 12V
C VS
C RVS
SW 5V
GND (SW)
FG 2
FG 1
GND (MTR)
LIMIT
DRUM MOTOR (M901)
M1
M2
M3
VCC
HE (+)
HE (-)
N.C.
GND (SW)
MTR 12V
CN001 10P WHT
09


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IC002
WAVE SHAPER
IC002 XRA10324
IC004 DRUM MOTOR DRIVE, FG/PG DETECT
IC004 AN3814K
IC005
FG/PG SEP
IC005 XRA10393
PH001 TAKE-UP REEL SENSOR
PH002 SUPPLY REEL SENSOR
D004 MTZJ-T72-6.8
D005 MTZJ-T72-6.8
(TAPE TOP/END) D001
(CASEETTE UP/DOWN) S001
(REC PROOF) S002
CN003 5P WHT
MODE 4
MODE 3
MODE 1
MODE 2
GND (UNSW)
CAM ENCODER
E CODE4
E CODE3
E CODE1
E CODE2
GND (UNSW)
S1 ROTARY SWITCH
CN004 19P WHT
CAM (+)
CAM (+)
MODE 3
MODE 4
MODE 1
MODE 2
LAMP VCC
END LED
REC PRF
C UP DOWN
S SENS
T SENS
T REEL
S REEL
GND (UNSW)
D PG
GND (SW)
GND (SW)
D FG
TO MA-125 BOARD (1/2) CN904
(See Page 77)
CN005 3P WHT
LOAD (-)
LOAD (+)
LOAD (-)
CN001
M904 LOADING MOTOR
CN006 3P WHT
CAM (+)
N.C.
CAM (-)
M903 CAM MOTOR
CN007 19P WHT
D VS
LOAD (+)
LOAD (+)
GND (MTR)
GND (MTR)
SW 5V
SW 5V
FG2
FG1
N.C.
CAP RVS
MTR 12V
MTR 12V
C VS
REF 2.5V
MTR 12V
UNSW 5V
COM
COM
TO MA-125 BOARD (1/2) CN907
(See Page 76, 77)
M2
M1
CS
FC
GND
ETR
ET/DS
HE-
HE+
ATC
M3
VM
PG/FG
P3
P2
P1
VCC
FC
VCC
VEE
R003 5600
R005 1800
R004 5600
R013 10k
C006 47 6.3V
C005 10 25V
R014 6800
R011 47k
R015 47k
R016 2200
R012 2200
R008 4700
R009 220
R006 100k
R007 100k
C003 10 25V
R010 4700
C004 0.01
R025 10k
R022 12k
R024 12k
R026 47k
R023 10k
C025 10 25V
R032 0.68 1W
C020 0.1
C013 0.1 F
C014 0.1 F
C015 0.1 F
C019 0.15
C026 10 25V
R028 1200
C027 10 25V
R029 15
R030 15
R031 15
C016 10 25V
C017 10 25V
C018 10 25V
C008 0.1 F
C009 0.1 F


MD-40 BOARD
1
5Vp-p
1.14sec
IC002 ①,⑭ REC/PB
2
2.5Vp-p
6.5msec
IC004 ⑮ REC/PB
3
5Vp-p
6.5msec
IC005 ① REC/PB
4
5Vp-p
2V
IC005 ⑦ REC/PB

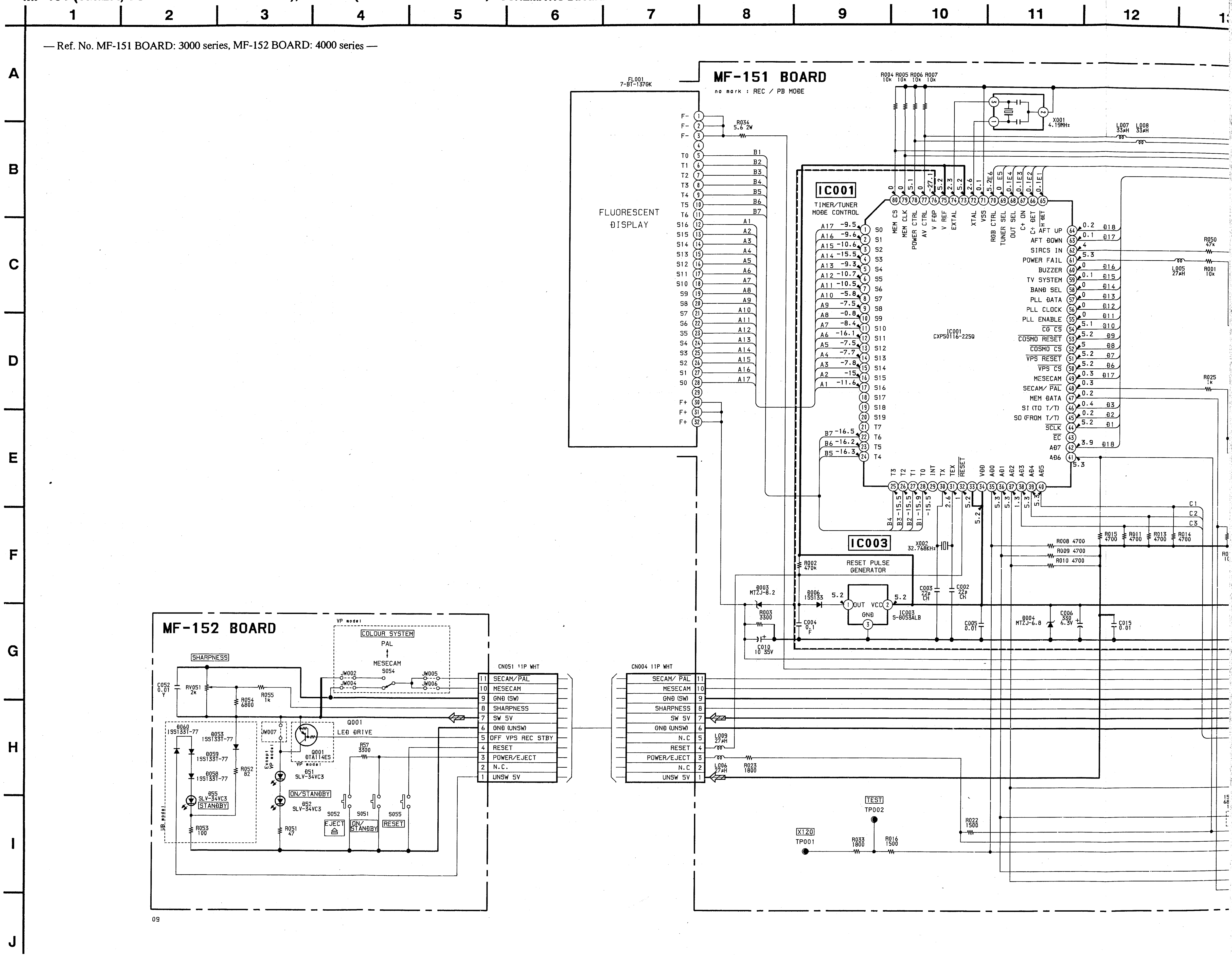
**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safty. Replace only with part number specified.

- **SIGNAL PATH**

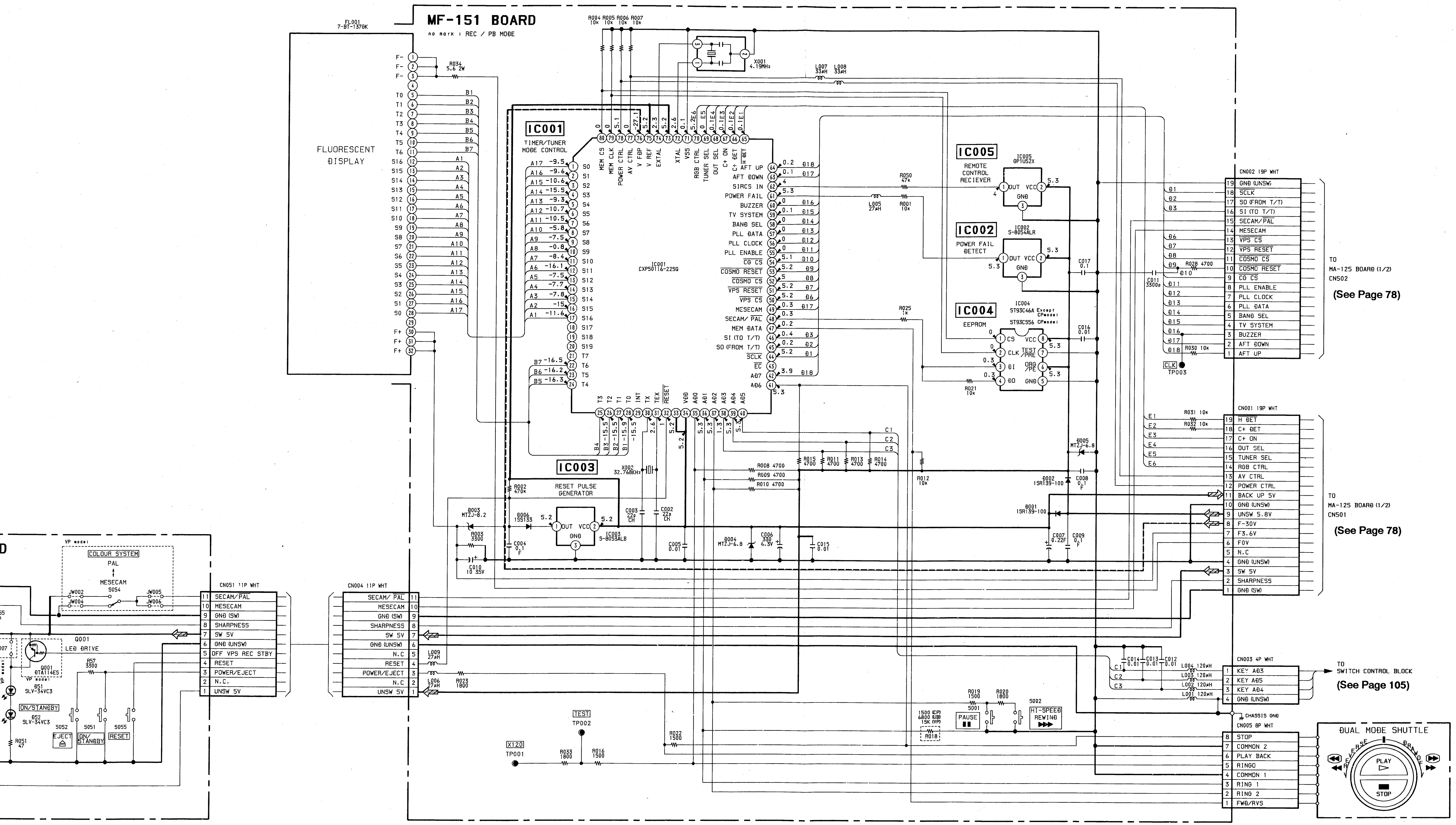
| | REC | REC/PB | PB |
|---|---|---|---|
| Drum speed servo | | ▷ | |
| Drum phase servo | | ▷▷ | |
| Drum servo (speed and phase) | | ▷▷▷ | |
| Capstan speed servo | | ⊐ | |
| Capstan phase servo | | | |
| Capstan servo (speed and phase) | | ⊐»» | |
| Ref. signal | | | |

## MF-151 (TIMER, TUNER MODE CONTROL), MF-152 (FUNCTION SWITCH) SCHEMATIC DIAGRAMS

— Ref. No. MF-151 BOARD: 3000 series, MF-152 BOARD: 4000 series —


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
MF-151 BOARD
no mark : REC / PB MODE
FL001
7-BT-1376K
FLUORESCENT
DISPLAY
R034
5.6 2W
R004 R005 R006 R007
10k 10k 10k 10k
X001
4.19MHz
L007 L008
33µH 33µH
IC001
TIMER/TUNER
MODE CONTROL
IC001
CXP50116-225Q
MEM CS
MEM CLK
POWER CTRL
AV CTRL
V FDP
V REF
EXTAL
XTAL
VSS
RGB CTRL
TUNER SEL
OUT SEL
C+ ON
C+ DET
H DET
AFT UP
AFT DOWN
SIRCS IN
POWER FAIL
BUZZER
TV SYSTEM
BAND SEL
PLL DATA
PLL CLOCK
PLL ENABLE
CG CS
COSMO RESET
COSMO CS
VPS RESET
VPS CS
MESECAM
SECAM/ PAL
MEM DATA
SI (TO T/T)
SO (FROM T/T)
SCLK
EC
AD7
AD6
T3
T2
T1
T0
INT
TX
TEX
RESET
VDD
AD0
AD1
AD2
AD3
AD4
AD5
IC003
RESET PULSE
GENERATOR
IC003
S-8053ALB
X002
32.768KHz
R002
470k
D003
MTZJ-8.2
D006
1SS133
R003
3300
C004
0.1
F
C010
10 35V
C003
22p
CH
C002
22p
CH
C005
0.01
D004
MTZJ-6.8
C006
330
6.3V
C015
0.01
R008 4700
R009 4700
R010 4700
R015 4700
R011 4700
R013 4700
R014 4700
R050
47k
L005
27µH
R001
10k
R025
1k
C1
C2
C3
CN004 11P WHT
SECAM/ PAL
MESECAM
GND (SW)
SHARPNESS
SW 5V
GND (UNSW)
N.C
RESET
POWER/EJECT
N.C
UNSW 5V
L009
27µH
L006
27µH
R023
1800
TEST
TP002
XT20
TP001
R033
1800
R016
1500
R022
1500
MF-152 BOARD
SHARPNESS
C052
0.01
F
RV051
2k
R054
6800
R055
1k
VP model
COLOUR SYSTEM
PAL
MESECAM
S054
JW002
JW004
JW005
JW006
CN051 11P WHT
SECAM/PAL
MESECAM
GND (SW)
SHARPNESS
SW 5V
GND (UNSW)
OFF VPS REC STBY
RESET
POWER/EJECT
N.C.
UNSW 5V
Q001
LED DRIVE
Q001
DTA114ES
JW007
D060
1SS133T-77
D053
1SS133T-77
D059
1SS133T-77
D058
1SS133T-77
R052
82
D55
SLV-34VC3
STANDBY
R053
100
UB model
D51
SLV-34VC3
R57
3300
ON/STANDBY
D52
SLV-34VC3
R051
47
S052
EJECT
S051
ON/
STANDBY
S055
RESET
09

BOARD: 4000 series —

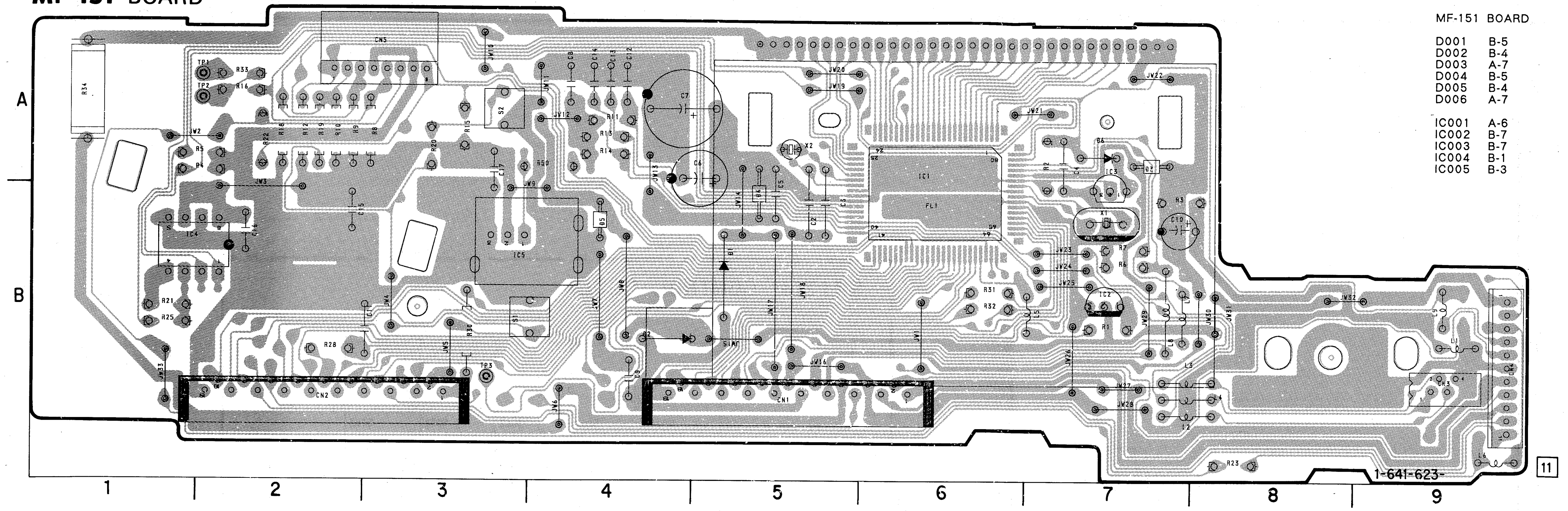

MF-151 BOARD
no mark : REC / PB MODE
FL001 7-BT-137GK
FLUORESCENT DISPLAY
R034 5.6 2W
R004 R005 R006 R007 10k 10k 10k 10k
X001 4.19MHz
L007 33μH L008 33μH
IC001 TIMER/TUNER MODE CONTROL
IC001 CXP50116-225Q
MEM CS
MEM CLK
POWER CTRL
AV CTRL
V FBP
V REF
EXTAL
XTAL
VSS
RGB CTRL
TUNER SEL
OUT SEL
C+ ON
C+ DET
H DET
AFT UP
AFT DOWN
SIRCS IN
POWER FAIL
BUZZER
TV SYSTEM
BAND SEL
PLL DATA
PLL CLOCK
PLL ENABLE
CG CS
COSMO RESET
COSMO CS
VPS RESET
VPS CS
MESECAM
SECAM/ PAL
MEM DATA
SI (TO T/T)
SO (FROM T/T)
SCLK
EC
AD7
AD6
IC005 REMOTE CONTROL RECIEVER
IC005 GP1U52X
IC002 POWER FAIL DETECT
IC002 S-8054ALR
IC004 EEPROM
IC004 ST93C46A Except CP model ST93C56 CP model
CS VCC CLK TEST/PRE DI ORG/PE DO GND
R050 47k
L005 27μH
R001 10k
R025 1k
R021 10k
C017 0.1
C011 3300p
C016 0.01
R028 4700
R030 10k
CLK TP003
IC003 RESET PULSE GENERATOR
IC003 S-8053ALB
R002 470k
D003 MTZJ-8.2
D006 1SS133
R003 3300
C004 0.1 F
C010 10 35V
X002 32.768KHz
C003 22p CH
C002 22p CH
C005 0.01
R008 4700
R009 4700
R010 4700
R015 4700
R011 4700
R013 4700
R014 4700
R012 10k
D004 MTZJ-6.8
C006 330 6.3V
C015 0.01
D005 MTZJ-6.8
D002 1SR139-100
C008 0.1 F
D001 1SR139-100
C007 0.22F
C009 0.1 F
R031 10k
R032 10k
CN002 19P WHT
GND (UNSW)
SCLK
SO (FROM T/T)
SI (TO T/T)
SECAM/PAL
MESECAM
VPS CS
VPS RESET
COSMO CS
COSMO RESET
CG CS
PLL ENABLE
PLL CLOCK
PLL DATA
BAND SEL
TV SYSTEM
BUZZER
AFT DOWN
AFT UP
TO MA-125 BOARD (1/2) CN502
(See Page 78)
CN001 19P WHT
H DET
C+ DET
C+ ON
OUT SEL
TUNER SEL
RGB CTRL
AV CTRL
POWER CTRL
BACK UP 5V
GND (UNSW)
UNSW 5.8V
F-30V
F3.6V
F0V
N.C
GND (UNSW)
SW 5V
SHARPNESS
GND (SW)
TO MA-125 BOARD (1/2) CN501
(See Page 78)
VP model
COLOUR SYSTEM
PAL
MESECAM
S054
JW002 JW004 JW005 JW006
Q001 LED DRIVE
Q001 DTA114ES
R57 3300
D51 SLY-34VC3
ON/STANDBY
D52 SLY-34VC3
S052 EJECT
S051 ON/STANDBY
S055 RESET
R051 47
CN051 11P WHT
SECAM/PAL
MESECAM
GND (SW)
SHARPNESS
SW 5V
GND (UNSW)
OFF VPS REC STBY
RESET
POWER/EJECT
N.C.
UNSW 5V
CN004 11P WHT
SECAM/ PAL
MESECAM
GND (SW)
SHARPNESS
SW 5V
GND (UNSW)
N.C
RESET
POWER/EJECT
N.C
UNSW 5V
L009 27μH
L006 27μH
R023 1800
TEST TP002
X120 TP001
R033 1800
R016 1500
R022 1500
R019 1500
R020 1800
S001 PAUSE
S002 HI-SPEED REWIND
1500 (CP) 6800 (UB) 15K (VP) R018
C014 0.01 C013 0.01 C012 0.01
L004 120μH L003 120μH L002 120μH L001 120μH
CN003 4P WHT
KEY AD3
KEY AD5
KEY AD4
GND (UNSW)
TO SWITCH CONTROL BLOCK
(See Page 105)
CHASSIS GND
CN005 8P WHT
STOP
COMMON 2
PLAY BACK
RINGO
COMMON 1
RING 1
RING 2
FWD/RVS
DUAL MODE SHUTTLE
REVERSE
FORWARD
PLAY
STOP

FUNCTION/MODE CONTROL FUNCTION/MODE CONTROL

## MF-151 (TIMER, TUNER MODE CONTROL), MF-152 (FUNCTION SWITCH) PRINTED WIRING BOARDS

— Ref. No. MF-151 BOARD: 3000 series, MF-152 BOARD: 4000 series —

**MF-151** BOARD


A
B
1
2
3
4
5
6
7
8
9
IC1
IC2
IC3
IC4
IC5
CN1
CN2
CN3
1-641-623-
11

MF-151 BOARD

| | |
|---|---|
| D001 | B-5 |
| D002 | B-4 |
| D003 | A-7 |
| D004 | B-5 |
| D005 | B-4 |
| D006 | A-7 |
| IC001 | A-6 |
| IC002 | B-7 |
| IC003 | B-7 |
| IC004 | B-1 |
| IC005 | B-3 |

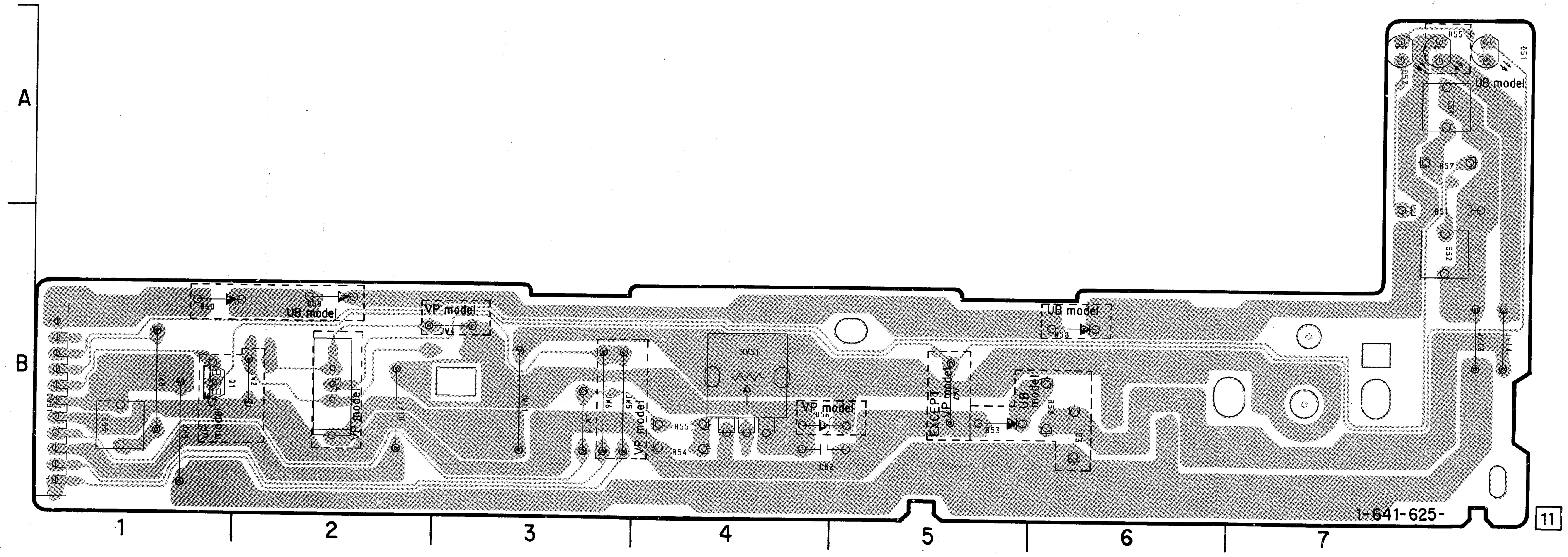
〈 DIODE 〉

| | | | |
|---|---|---|---|
| D001 | 8-719-974-59 | DIODE | 1SR139-100 |
| D002 | 8-719-974-59 | DIODE | 1SR139-100 |
| D003 | 8-719-110-08 | DIODE | RD8. 2ES-B2 |
| D004 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D005 | 8-719-109-97 | DIODE | RD6. 8ES-B2 |
| D006 | 8-719-987-06 | DIODE | WG713A |
| D006 | 8-719-911-19 | DIODE | 1SS119 |

〈 IC 〉

| | | | |
|---|---|---|---|
| IC001 | 8-752-832-89 | IC | CXP50116-270Q |
| IC002 | 8-759-505-83 | IC | S-8054ALR-Z |
| IC003 | 8-759-941-78 | IC | S-8053ALB |
| IC004 | 8-759-501-99 | IC | ST93C46AB1 |
| IC005 | 1-466-131-21 | IC | GP1U52X |

**MF-152** BOARD


A
B
1
2
3
4
5
6
7
UB model
VP model
VP model
UB model
VP model
VP model
EXCEPT VP model
UB model
RV51
1-641-625-
11

MF-152 BOARD

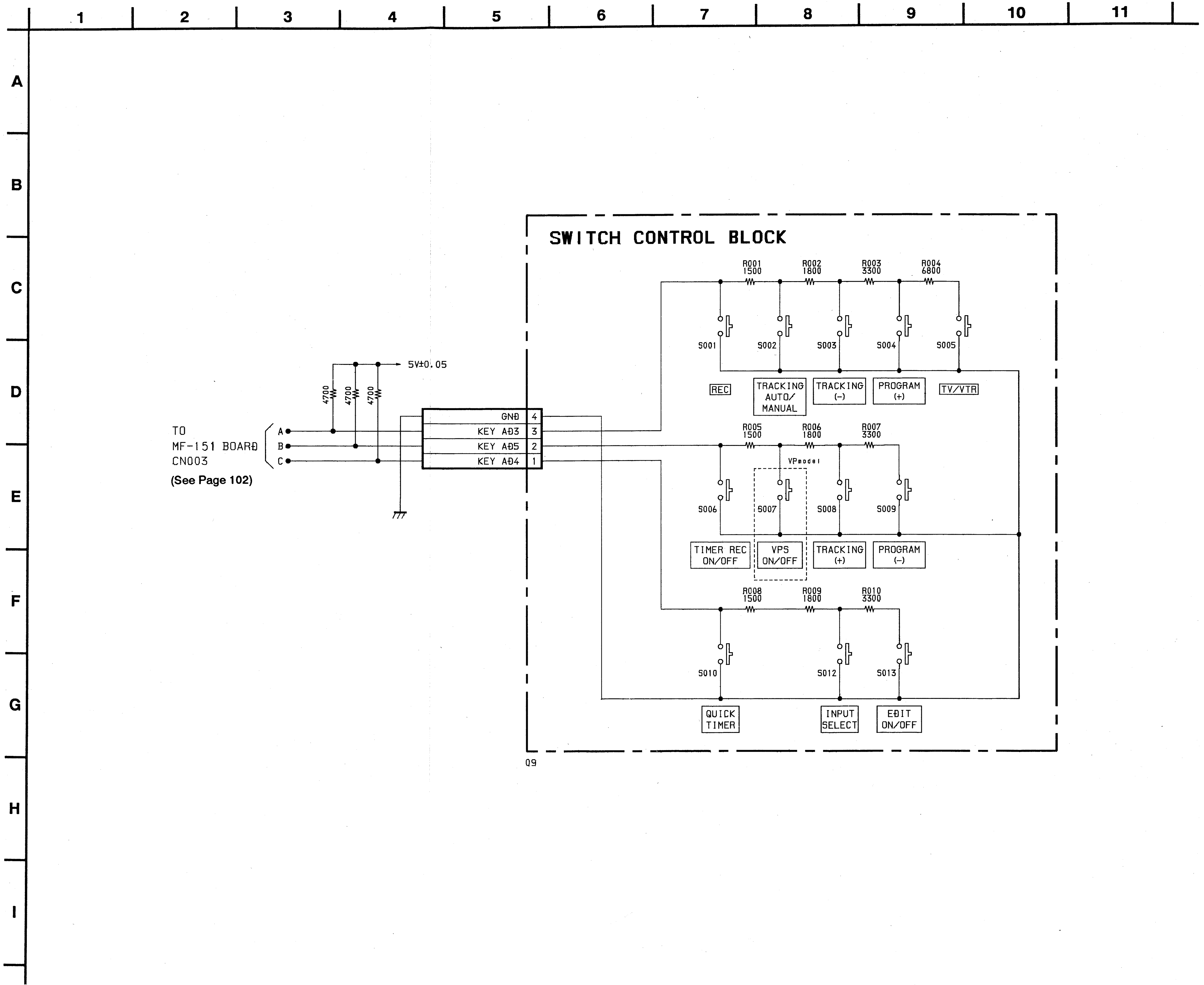
| | |
|---|---|
| D051 | A-7 |
| D052 | A-7 |
| D053 | B-5 |
| D055 | A-7 |
| D056 | B-4 |
| D058 | A-6 |
| D059 | A-2 |
| D060 | A-1 |
| Q001 | B-1 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D051 | 8-719-970-67 | DIODE | SLR-34MC80F215 |
| D052 | 8-719-970-67 | DIODE | SLR-34MC80F215 |
| D053 | 8-719-911-19 | DIODE | 1SS133T (UB MODEL) |
| D055 | 8-719-940-99 | DIODE | SLV-34VC3 (UB MODEL) |
| D058 | 8-719-911-19 | DIODE | 1SS133T (UB MODEL) |
| D059 | 8-719-911-19 | DIODE | 1SS133T (UB MODEL) |
| D060 | 8-719-911-19 | DIODE | 1SS133T (UB MODEL) |

## SWITCH BLOCK (FUNCTION SWITCH) SCHEMATIC DIAGRAM

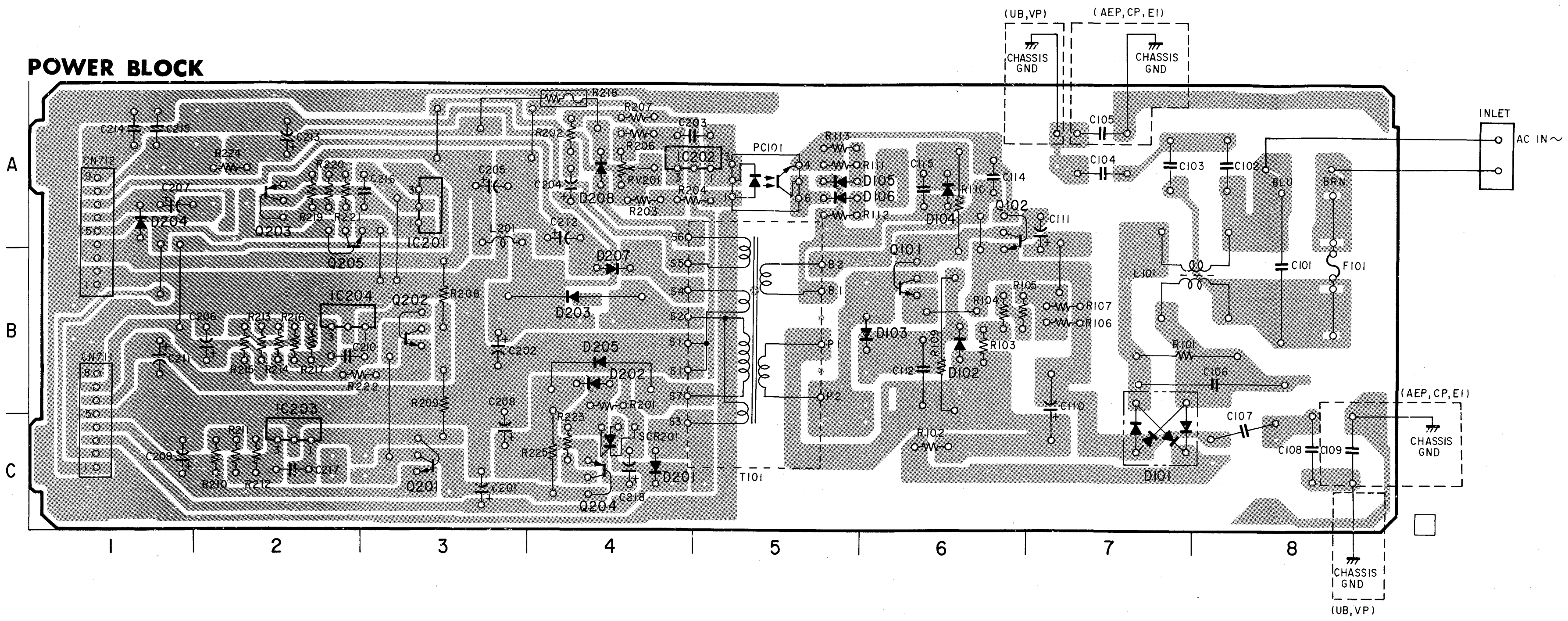
**Note:** Switch control block is replaced as a block.


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
SWITCH CONTROL BLOCK
R001 1500
R002 1800
R003 3300
R004 6800
S001
S002
S003
S004
S005
REC
TRACKING AUTO/ MANUAL
TRACKING (−)
PROGRAM (+)
TV/VTR
R005 1500
R006 1800
R007 3300
VPmodel
S006
S007
S008
S009
TIMER REC ON/OFF
VPS ON/OFF
TRACKING (+)
PROGRAM (−)
R008 1500
R009 1800
R010 3300
S010
S012
S013
QUICK TIMER
INPUT SELECT
EDIT ON/OFF
Q9
5V±0.05
4700
4700
4700
GND 4
KEY AD3 3
KEY AD5 2
KEY AD4 1
TO MF-151 BOARD CN003
A
B
C
(See Page 102)

**FUNCTION SWITCH**　**FUNCTION SWITCH**

## POWER BLOCK (POWER SUPPLY) PRINTED WIRING BOARD

— Ref. No. POWER BLOCK: 9000 series —


POWER BLOCK
(UB,VP)
(AEP,CP,EI)
CHASSIS GND
INLET
AC IN～
CN712
CN711
IC201
IC202
IC203
IC204
PC101
Q101
Q102
Q201
Q202
Q203
Q204
Q205
D101
D103
D104
D105
D106
D201
D202
D203
D204
D205
D207
D208
SCR201
T101
L101
L201
F101
RV201
BLU
BRN
A
B
C
1
2
3
4
5
6
7
8

POWER BLOCK

| | |
|---|---|
| D101 | C-7 |
| D102 | B-6 |
| D103 | B-6 |
| D104 | A-6 |
| D105 | A-5 |
| D106 | A-5 |
| D201 | C-4 |
| D202 | B-4 |
| D203 | B-4 |
| D204 | A-1 |
| D205 | B-4 |
| D207 | B-4 |
| D208 | A-4 |
| IC201 | A-3 |
| IC202 | A-5 |
| IC203 | C-2 |
| IC204 | B-2 |
| PC101 | A-5 |
| Q101 | B-6 |
| Q102 | A-6 |
| Q201 | C-3 |
| Q202 | B-3 |
| Q203 | A-2 |
| Q204 | C-4 |
| Q205 | A-2 |
| SCR201 | C-4 |

〈 DIODE 〉

| | | | |
|---|---|---|---|
| D101 | 9-900-511-01 | DIODE | S1WBA60 |
| D102 | 8-719-948-45 | DIODE | ERA22-08 |
| D103 | 8-719-948-45 | DIODE | ERA22-08 |
| D104 | 8-719-200-82 | DIODE | 11ES2 |
| D105 | 8-719-109-63 | DIODE | RD3.0EB2 |
| D106 | 8-719-911-19 | DIODE | 1SS119 |
| D201 | 9-900-534-01 | DIODE | ERA18-02 |
| D202 | 8-719-114-55 | DIODE | RD9.1JSB |
| D203 | 8-719-311-30 | DIODE | RL4Z |
| D204 | 9-998-861-01 | DIODE | ERA83-004 |
| D205 | 8-719-981-00 | DIODE | ERC81-004 |
| D207 | 9-900-534-01 | DIODE | ERA18-02 |
| D208 | 9-998-861-01 | DIODE | ERA83-004 |

〈 IC 〉

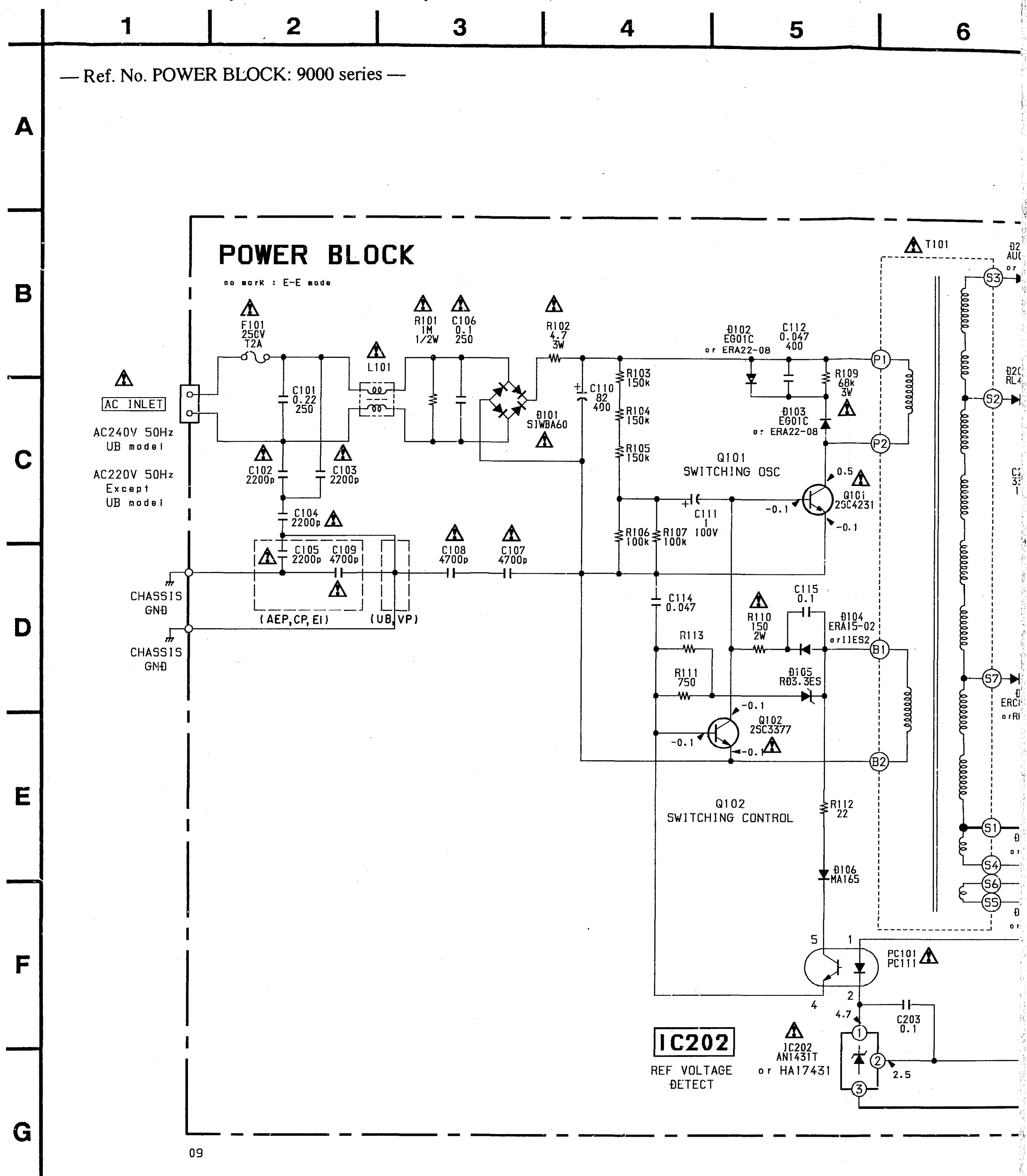
| | | | |
|---|---|---|---|
| IC201 | 9-900-530-01 | IC | AN7809F |
| IC202 | 8-759-420-19 | IC | AN1431T |
| IC203 | 8-759-420-19 | IC | AN1431T |
| IC204 | 8-759-420-19 | IC | AN1431T |

〈 TRANSISTOR 〉

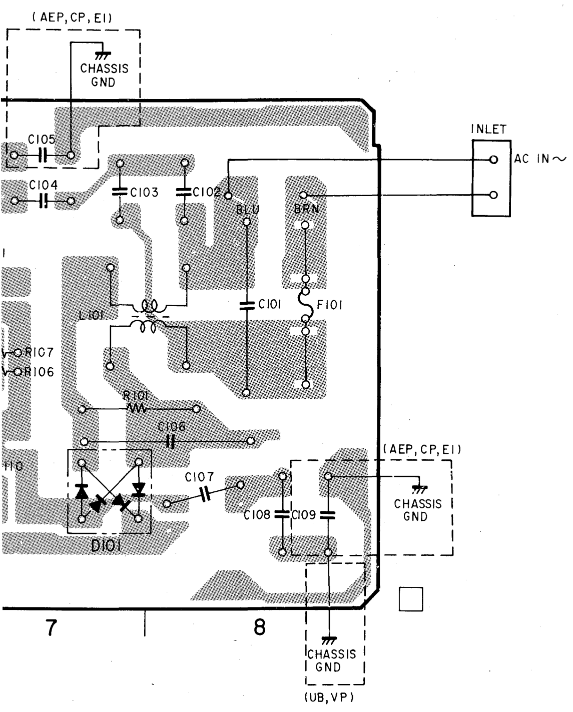
| | | | |
|---|---|---|---|
| Q101 | 8-729-204-94 | TRANSISTOR | 2SC3559 |
| Q102 | 8-729-142-46 | TRANSISTOR | 2SC2001-L |
| Q201 | 9-901-973-01 | TRANSISTOR | 2SC4545 |
| Q202 | 9-901-973-01 | TRANSISTOR | 2SC4545 |
| Q203 | 8-729-993-42 | TRANSISTOR | 2SA934-Q |
| Q204 | 8-729-201-53 | TRANSISTOR | 2SA1015-GR |
| Q205 | 8-729-900-80 | TRANSISTOR | DTC114ES |

## POWER BLOCK (POWER SUPPLY) SCHEMATIC DIAGRAM

— Ref. No. POWER BLOCK: 9000 series —


1
2
3
4
5
6
A
B
C
D
E
F
G
POWER BLOCK
no mark : E-E mode
AC INLET
AC240V 50Hz
UB model
AC220V 50Hz
Except
UB model
CHASSIS GND
F101
L101
T101
Q101
SWITCHING OSC
Q102
SWITCHING CONTROL
IC202
REF VOLTAGE DETECT
PC101
(AEP,CP,EI)
(UB,VP)
09

**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.


(AEP,CP,EI)
CHASSIS GND
INLET
AC IN~
C105
C104
C103
C102
BLU
BRN
L101
C101
F101
R107
R106
R101
C106
C107
C108
C109
D101
(AEP,CP,EI)
CHASSIS GND
7
8
CHASSIS GND
(UB,VP)

60
-08
-08
EB2
9
-02
JSB
-004
-004
-02
-004

〈 IC 〉

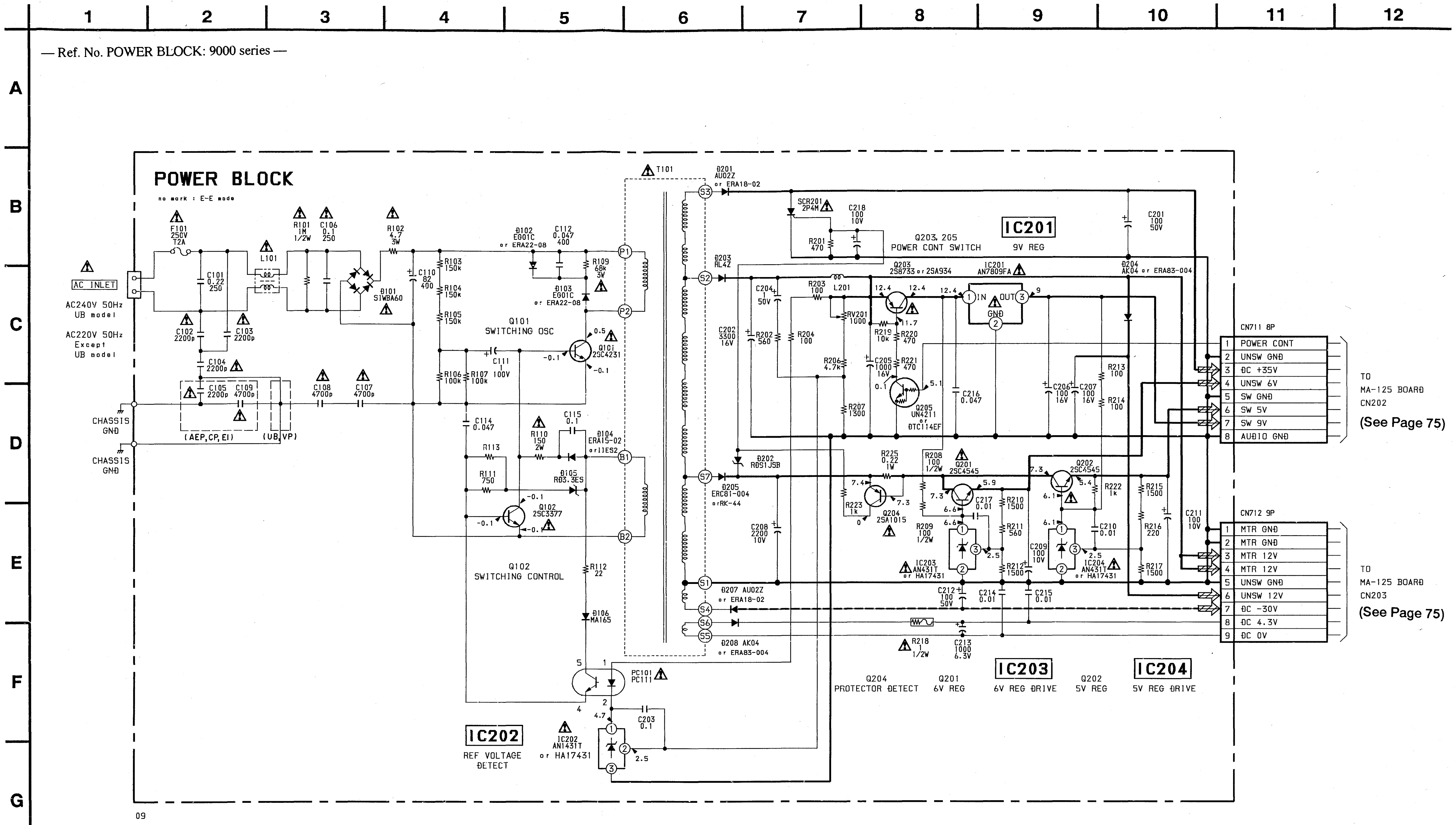
| | | | |
|---|---|---|---|
| IC201 | 9-900-530-01 | IC | AN7809F |
| IC202 | 8-759-420-19 | IC | AN1431T |
| IC203 | 8-759-420-19 | IC | AN1431T |
| IC204 | 8-759-420-19 | IC | AN1431T |

〈 TRANSISTOR 〉

| | | | |
|---|---|---|---|
| Q101 | 8-729-204-94 | TRANSISTOR | 2SC3559 |
| Q102 | 8-729-142-46 | TRANSISTOR | 2SC2001-L |
| Q201 | 9-901-973-01 | TRANSISTOR | 2SC4545 |
| Q202 | 9-901-973-01 | TRANSISTOR | 2SC4545 |
| Q203 | 8-729-993-42 | TRANSISTOR | 2SA934-Q |
| Q204 | 8-729-201-53 | TRANSISTOR | 2SA1015-GR |
| Q205 | 8-729-900-80 | TRANSISTOR | DTC114ES |

## POWER BLOCK (POWER SUPPLY) SCHEMATIC DIAGRAM

— Ref. No. POWER BLOCK: 9000 series —


1
2
3
4
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7
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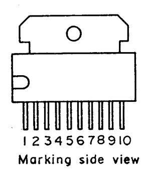
9
10
11
12
A
B
C
D
E
F
G
POWER BLOCK
no mark : E-E mode
AC INLET
AC240V 50Hz UB model
AC220V 50Hz Except UB model
F101 250V T2A
C101 0.22 250
C102 2200p
C103 2200p
C104 2200p
C105 2200p
C109 4700p
(AEP,CP,EI)
(UB,VP)
CHASSIS GND
L101
R101 1M 1/2W
C106 0.1 250
D101 S1WBA60
R102 4.7 3W
C110 82 400
R103 150k
R104 150k
R105 150k
R106 100k
R107 100k
C108 4700p
C107 4700p
D102 EG01C or ERA22-08
C112 0.047 400
R109 68k 3W
D103 EG01C or ERA22-08
Q101 SWITCHING OSC
Q101 2SC4231
C111 1 100V
C114 0.047
R110 150 2W
C115 0.1
D104 ERA15-02 or 11ES2
R113
R111 750
D105 RD3.3ES
Q102 2SC3377
Q102 SWITCHING CONTROL
R112 22
D106 MA165
T101
PC101 PC111
C203 0.1
IC202
REF VOLTAGE DETECT
IC202 AN1431T or HA17431
D201 AU02Z or ERA18-02
SCR201 2P4M
C218 100 10V
R201 470
Q203, 205 POWER CONT SWITCH
IC201
9V REG
C201 100 50V
D203 RL4Z
Q203 2SB733 or 2SA934
IC201 AN7809FA
D204 AK04 or ERA83-004
C204 1 50V
R203 100
L201
RV201 1000
R219 10k
R220 470
IN
OUT
GND
C202 3300 16V
R202 560
R204 100
R206 4.7k
C205 1000 16V
R221 470
R207 1300
Q205 UN4211 or DTC114EF
C216 0.047
C206 100 16V
C207 100 16V
R213 100
R214 100
D202 RD5.1JSB
D205 ERC81-004 or RK-44
R225 0.22 1W
R208 100 1/2W
Q201 2SC4545
Q202 2SC4545
R222 1k
R215 1500
R223 1k
Q204 2SA1015
C217 0.01
R210 1500
C208 2200 10V
R209 100 1/2W
R211 560
C210 0.01
R216 220
C211 100 10V
IC203 AN431T or HA17431
C209 100 10V
R212 1500
IC204 AN431T or HA17431
R217 1500
D207 AU02Z or ERA18-02
C212 100 50V
C214 0.01
C215 0.01
R218 1 1/2W
C213 1000 6.3V
D208 AK04 or ERA83-004
Q204 PROTECTOR DETECT
Q201 6V REG
IC203 6V REG DRIVE
Q202 5V REG
IC204 5V REG DRIVE
CN711 8P
1 POWER CONT
2 UNSW GND
3 DC +35V
4 UNSW 6V
5 SW GND
6 SW 5V
7 SW 9V
8 AUDIO GND
TO MA-125 BOARD CN202
(See Page 75)
CN712 9P
1 MTR GND
2 MTR GND
3 MTR 12V
4 MTR 12V
5 UNSW GND
6 UNSW 12V
7 DC -30V
8 DC 4.3V
9 DC 0V
TO MA-125 BOARD CN203
(See Page 75)
09

**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

## 4-3. SEMICONDUCTORS

**BA6238A**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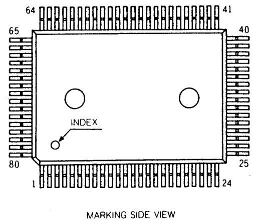
Marking side view

**CXP50116-270Q**


64
41
65
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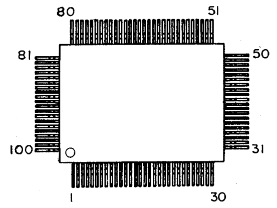
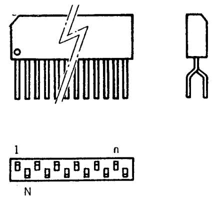
INDEX
80
25
1
24
MARKING SIDE VIEW

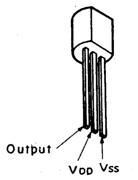
**CXP80624-209Q**


80
51
81
50
100
31
1
30

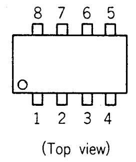
**LA7297**



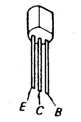
**S-8053ALB**
**S-8054ALR**


Output
VDD
Vss

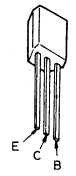
**TL082CP**


8 7 6 5
1 2 3 4
(Top view)

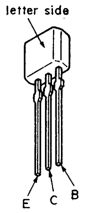
**2SA933S-QR**



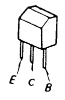
**2SC1740S**
**DTC114ES**
**DTC144ES**



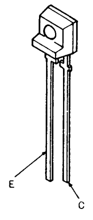
**2SC2785-HFE**
**DTA143XS**
**DTC114TS**


letter side
E
C
B

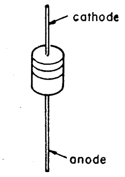
**2SD1312-K**



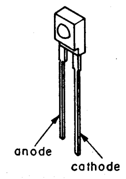
**PT483F1S**



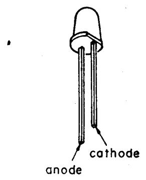
**1SS119**
**1SS133**
**1SR139-100**
**RD5.1ES-B2**
**RD6.8ES-B2**
**RD8.2ES-B2**
**RD33ES-B2**


cathode
anode

**GL451V**


anode
cathode

**SLR-34MC3**
**SLV-34VC3**


cathode
anode

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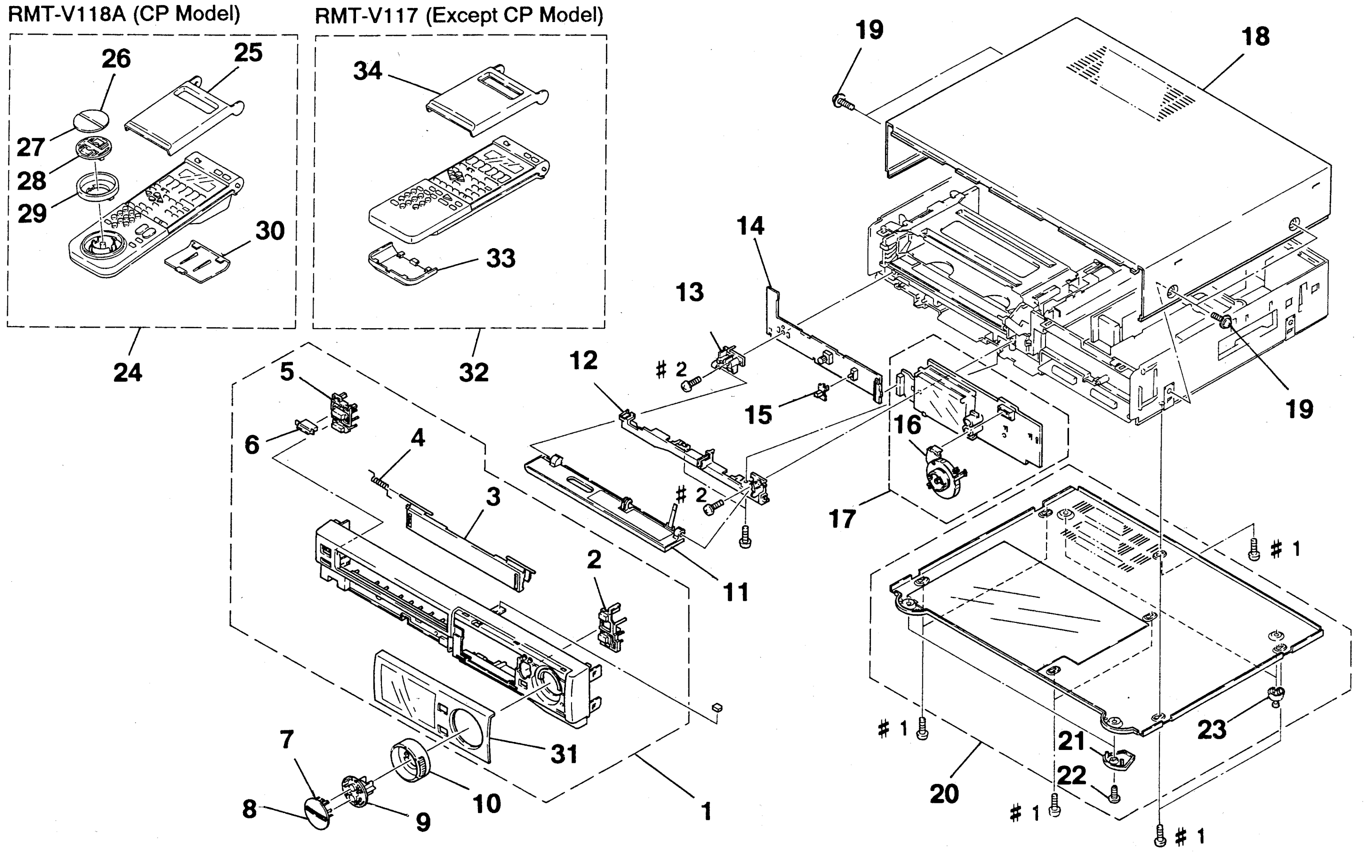
# SECTION 5
# EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

## 5-1. FRONT PANEL, CASE BLOCK ASSEMBLIES


RMT-V118A (CP Model)
RMT-V117 (Except CP Model)
26
25
27
28
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34
33
24
32
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18
14
13
12
# 2
15
16
17
# 2
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6
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3
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31
8
9
10
1
# 1
21
22
23
20
# 1
# 1
19

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3941-233-2 | PANEL ASSY, FRONT (VP MODEL) | |
| 1 | X-3941-106-2 | PANEL ASSY, FRONT (AEP/UB/EI/CP MODEL) | |
| 2 | 3-941-521-01 | BUTTON, PAUSE | |
| 3 | 3-945-096-11 | DOOR, CASSETTE | |
| 4 | 3-941-520-01 | SPRING, FL | |
| 5 | 3-941-517-11 | BUTTON, POWER-EJECT | |
| 6 | 3-941-518-01 | TIP, POWER BUTTON | |
| 7 | 3-941-510-11 | BUTTON, PLAYBACK | |
| 8 | 3-941-511-11 | BUTTON, STOP | |
| 9 | 3-941-515-01 | HOLDER, BUTTON | |
| 10 | 3-943-988-01 | RING, SHUTTLE | |
| 11 | 1-466-497-81 | SWITCH BLOCK, CONTROL (VP MODEL) | |
| 11 | 1-466-497-71 | SWITCH BLOCK, CONTROL (AEP/UB/EI MODEL) | |
| 11 | 1-466-497-91 | SWITCH BLOCK, CONTROL (CP MODEL) | |
| 12 | X-3940-667-1 | ESCUTCHEON ASSY, FRAME | |
| 13 | 3-941-537-01 | PLATE (LEFT), FULCRUM, DOOR | |
| ∗ 14 | A-6754-409-A | MF-152 BOARD, COMPLETE (AEP/VP/CP MODEL) | |
| ∗ 14 | A-6754-410-A | MF-152 BOAR, COMPLETE (AEP/CP/EI MODEL) | |
| ∗ 14 | A-6754-408-A | MF-152 BOAR, COMPLETE (UB MODEL) | |
| 15 | 3-744-217-01 | KNOB, SELECTION (VP MODEL) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 16 | 1-572-662-11 | SWITCH, ROTARY | |
| ∗ 17 | A-6721-449-A | MF-151 BOARD, COMPLETE | |
| 18 | 3-741-985-01 | CASE, UPPER | |
| 19 | 3-710-901-11 | SCREW (TP3X8), CASE | |
| 20 | X-3940-317-1 | PLATE ASSY, BOTTOM | |
| 21 | 3-941-509-01 | INSULATOR | |
| 22 | 3-721-343-01 | SCREW, FIXED, M4X7 | |
| 23 | 3-670-155-11 | LEG | |
| 24 | 1-465-724-41 | REMOTE COMMANDER (RMT-V118A) | |
| 25 | 3-947-723-01 | COVER, TIMER | |
| 26 | 3-941-617-01 | BUTTON, PLAYBACK | |
| 27 | 3-941-618-01 | BUTTON, STOP | |
| 28 | 3-941-619-01 | HOLDER, DIAL | |
| 29 | 3-941-616-01 | RING, SHUTTLE | |
| 31 | 3-941-523-62 | PLATE, TRANSPARENT | |
| 32 | 1-465-739-21 | REMOTE COMMANDER (RMT-V117) | |
| 33 | 2-181-766-01 | COVER, BATTERY | |
| 34 | 3-947-722-01 | COVER, TIMER | |

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## 5-2. POW

not

The componen
⚠ or dotted l
critical for safe
Replace only
specified.

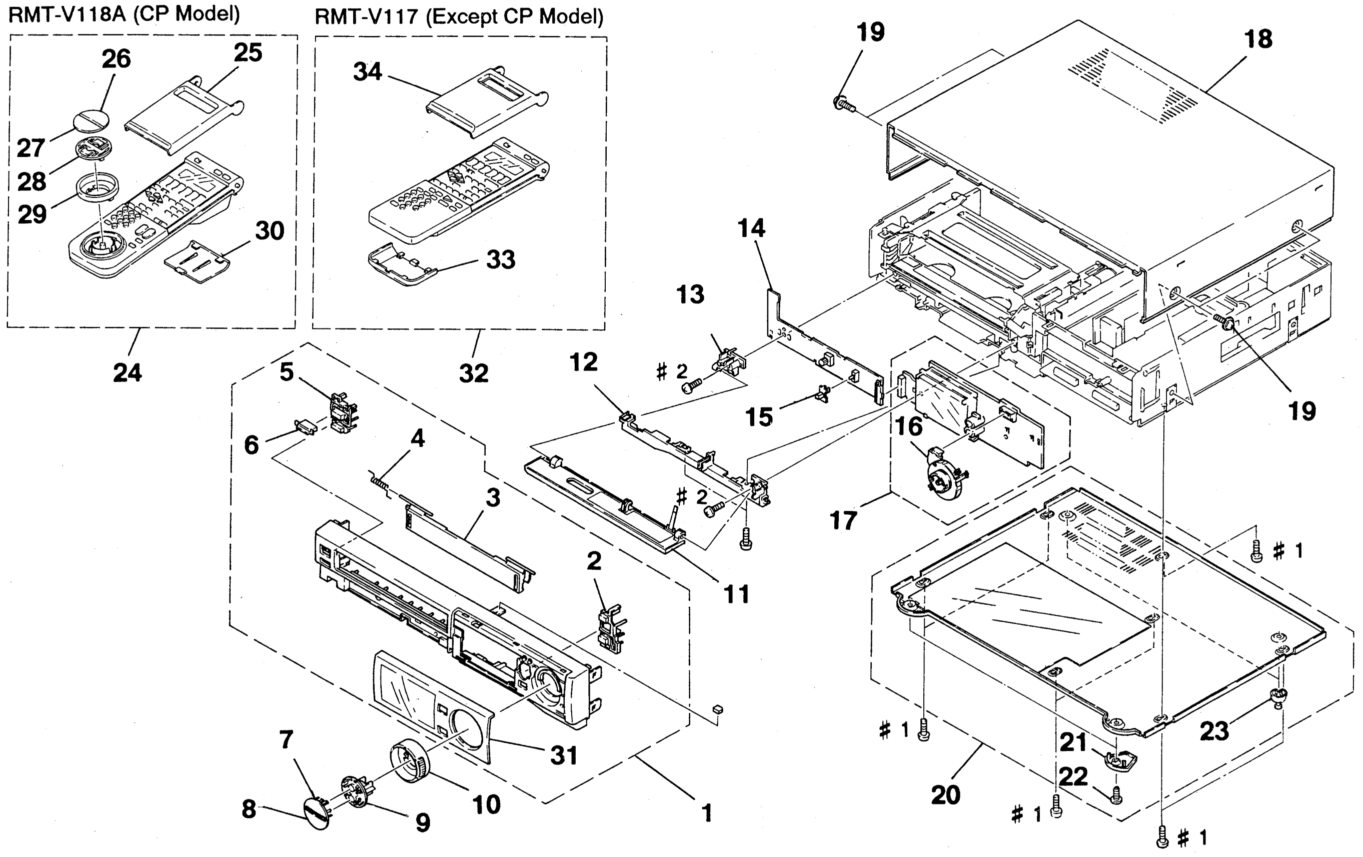
| Ref. No. | Part |
|---|---|
| 51 | A-672 |
| ∗ 52 | 3-74( |
| ∗ 53 | 3-74( |
| ⚠54 | 1-41: |
| ⚠54 | 1-41: |

# SECTION 5
# EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

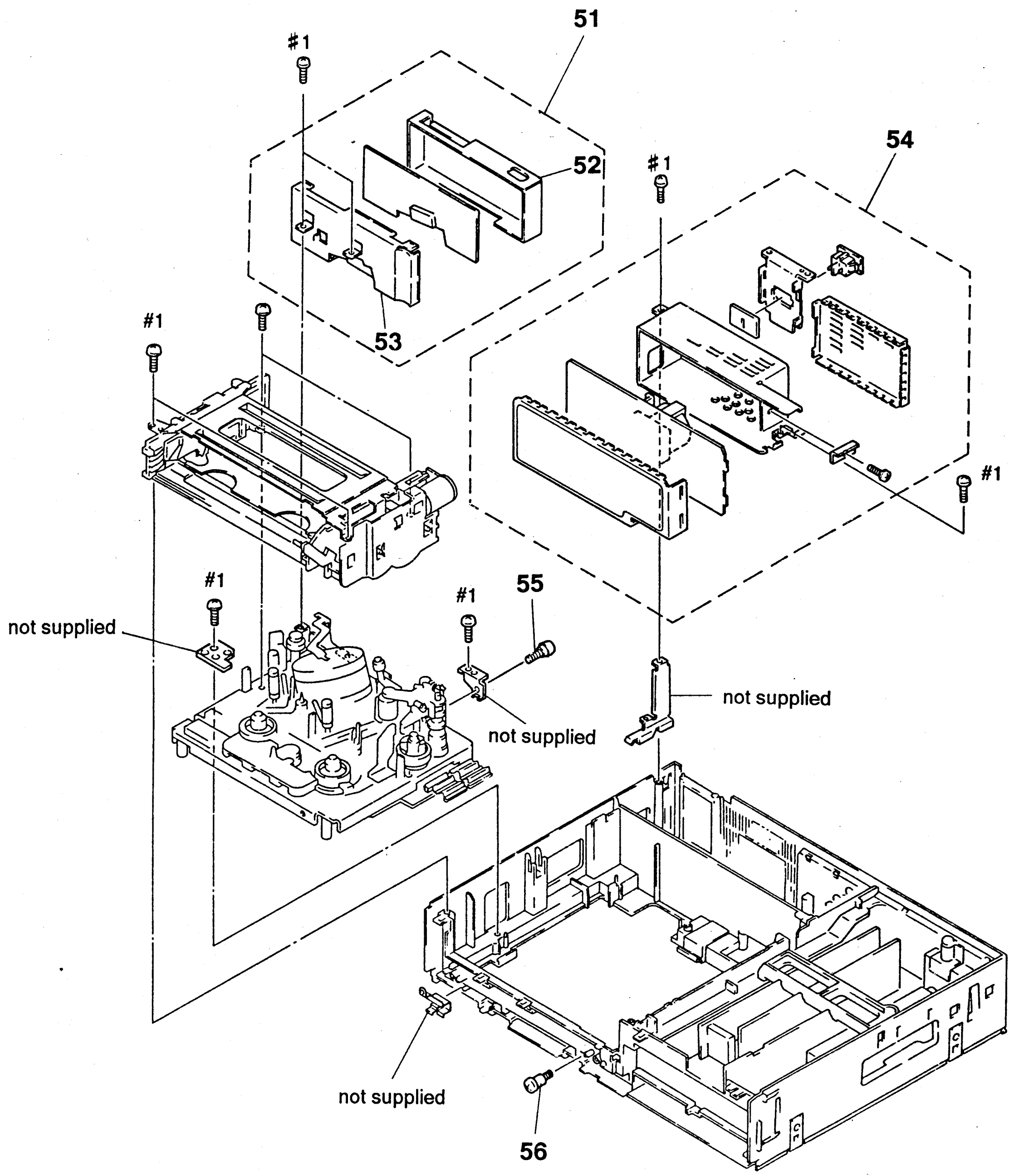
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

## 5-1. FRONT PANEL, CASE BLOCK ASSEMBLIES



| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3941-233-2 | PANEL ASSY, FRONT (VP MODEL) | |
| 1 | X-3941-106-2 | PANEL ASSY, FRONT (AEP/UB/EI/CP MODEL) | |
| 2 | 3-941-521-01 | BUTTON, PAUSE | |
| 3 | 3-945-096-11 | DOOR, CASSETTE | |
| 4 | 3-941-520-01 | SPRING, FL | |
| 5 | 3-941-517-11 | BUTTON, POWER-EJECT | |
| 6 | 3-941-518-01 | TIP, POWER BUTTON | |
| 7 | 3-941-510-11 | BUTTON, PLAYBACK | |
| 8 | 3-941-511-11 | BUTTON, STOP | |
| 9 | 3-941-515-01 | HOLDER, BUTTON | |
| 10 | 3-943-988-01 | RING, SHUTTLE | |
| 11 | 1-466-497-81 | SWITCH BLOCK, CONTROL (VP MODEL) | |
| 11 | 1-466-497-71 | SWITCH BLOCK, CONTROL (AEP/UB/EI MODEL) | |
| 11 | 1-466-497-91 | SWITCH BLOCK, CONTROL (CP MODEL) | |
| 12 | X-3940-667-1 | ESCUTCHEON ASSY, FRAME | |
| 13 | 3-941-537-01 | PLATE (LEFT), FULCRUM, DOOR | |
| * 14 | A-6754-409-A | MF-152 BOARD, COMPLETE (AEP/VP/CP MODEL) | |
| * 14 | A-6754-410-A | MF-152 BOAR, COMPLETE (AEP/CP/EI MODEL) | |
| * 14 | A-6754-408-A | MF-152 BOAR, COMPLETE (UB MODEL) | |
| 15 | 3-744-217-01 | KNOB, SELECTION (VP MODEL) | |
| 16 | 1-572-662-11 | SWITCH, ROTARY | |
| * 17 | A-6721-449-A | MF-151 BOARD, COMPLETE | |
| 18 | 3-741-985-01 | CASE, UPPER | |
| 19 | 3-710-901-11 | SCREW (TP3X8), CASE | |
| 20 | X-3940-317-1 | PLATE ASSY, BOTTOM | |
| 21 | 3-941-509-01 | INSULATOR | |
| 22 | 3-721-343-01 | SCREW, FIXED, M4X7 | |
| 23 | 3-670-155-11 | LEG | |
| 24 | 1-465-724-41 | REMOTE COMMANDER (RMT-V118A) | |
| 25 | 3-947-723-01 | COVER, TIMER | |
| 26 | 3-941-617-01 | BUTTON, PLAYBACK | |
| 27 | 3-941-618-01 | BUTTON, STOP | |
| 28 | 3-941-619-01 | HOLDER, DIAL | |
| 29 | 3-941-616-01 | RING, SHUTTLE | |
| 31 | 3-941-523-62 | PLATE, TRANSPARENT | |
| 32 | 1-465-739-21 | REMOTE COMMANDER (RMT-V117) | |
| 33 | 2-181-766-01 | COVER, BATTERY | |
| 34 | 3-947-722-01 | COVER, TIMER | |

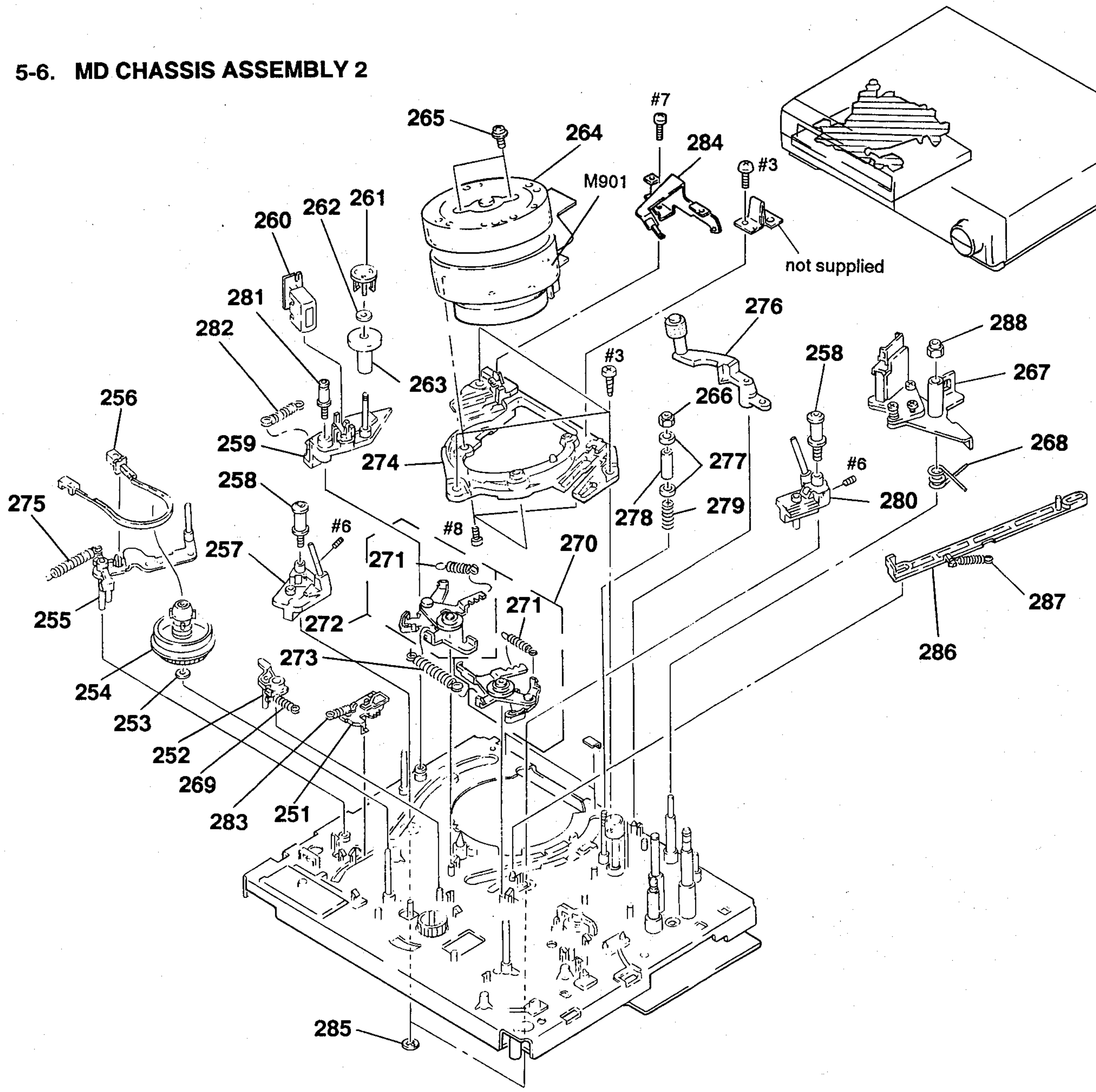
## 5-2. POWER SUPPLY BLOCK ASSEMBLY



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | A-6727-327-A | RP-100 BOARD, COMPLETE | |
| * 52 | 3-746-014-01 | CASE (MAIN), GRP | |
| * 53 | 3-746-015-01 | CASE (UPPER), GRP | |
| ⚠54 | 1-413-636-11 | POWER BLOCK (VP/EI MODEL) | |
| ⚠54 | 1-413-635-11 | POWER BLOCK (UB MODEL) | |
| ⚠54 | 1-413-637-11 | POWER BLOCK (AEP/CP MODEL) | |
| 55 | 3-736-055-01 | SCREW (3X8), TAPPING | |
| 56 | 3-741-948-01 | SCREW (3), SPECIAL (+) TAPPING | |

## 5-6. MD CHASSIS ASSEMBLY 2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M901
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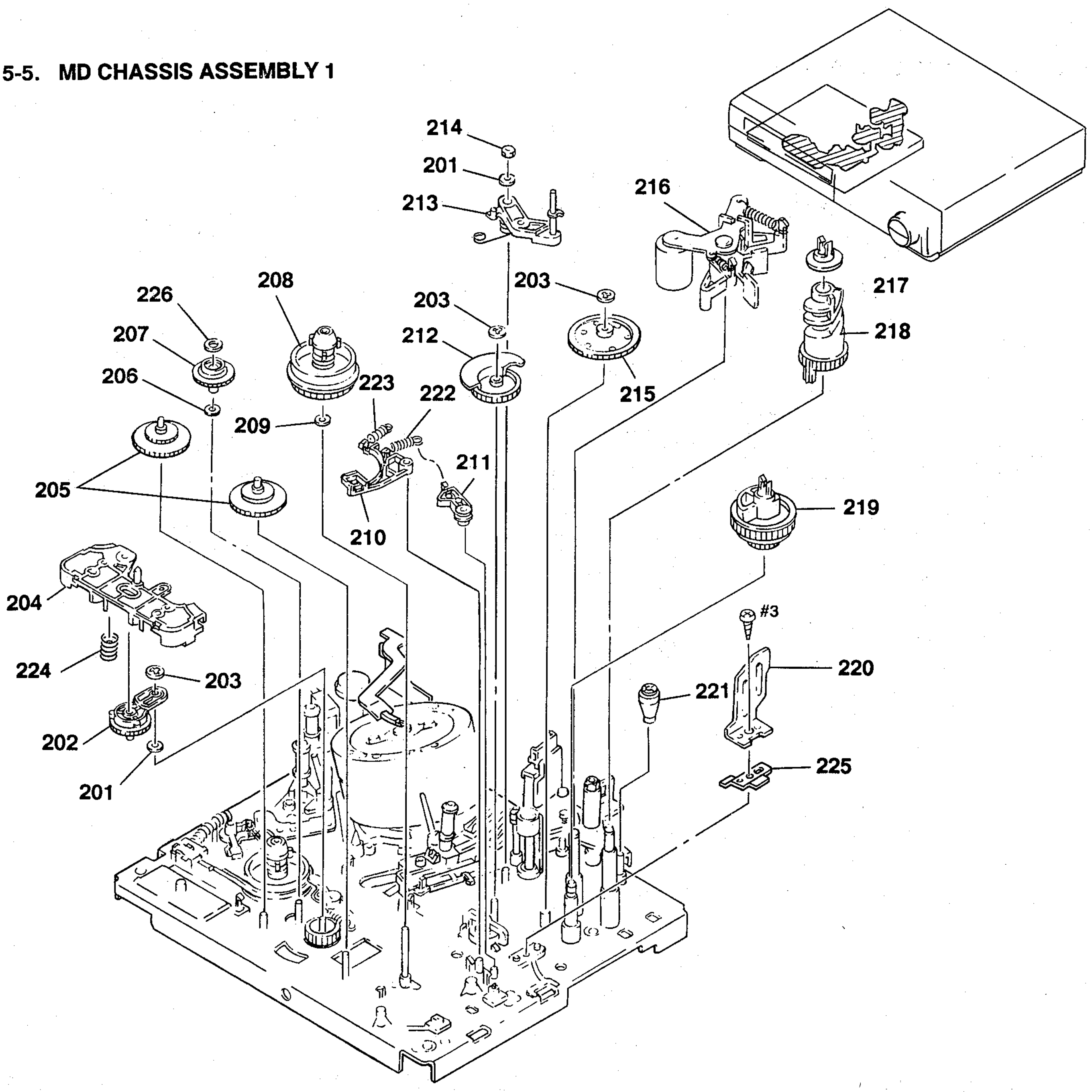
263
256
259
274
277
268
258
#6
280
275
278
279
#6
#8
257
271
270
287
255
272
271
286
273
254
253
252
269
283
251
285

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 251 | A-6759-483-A | TAKE-UP BLOCK ASSY (AT), S (VP MODEL) | |
| 252 | 3-736-075-01 | BRAKE, S SOFT | |
| 253 | 3-738-212-21 | RETAINER, THRUST, REEL TABLE | |
| 254 | X-3941-194-1 | TABLE ASSY, REEL, S | |
| 255 | 3-736-151-11 | ARM (POM), TENSION REGULATOR | |
| 256 | X-3727-797-1 | BAND ASSY, TENSION REGULATOR | |
| 257 | X-3727-786-1 | SHUTTLE (LEFT) ASSY | |
| 258 | X-3733-301-1 | ROLLER ASSY, GUIDE | |
| 259 | X-3727-767-1 | BASE ASSY, STABILIZER | |
| 260 | 1-543-647-11 | HEAD, FE | |
| 261 | 3-736-082-01 | RETAINER, TS THRUST | |
| 262 | 3-741-925-01 | RING, RETAINING | |
| 263 | X-3727-771-1 | STABLILIZER ASSY, TAPE | |
| 264 | 1-550-655-11 | UPPER DRUM ASSY (DZR-32-R) | |
| 265 | 2-643-205-01 | SCREW (+PSW 3X8) | |
| 266 | 3-942-866-01 | NUT (M3) (3X0.5), NYLON | |
| 267 | A-6761-129-A | HEAD BLOCK ASSY, ACE | |
| 268 | 3-946-148-01 | SPRING, TORSION | |
| 269 | 3-736-047-01 | SPRING (S SOFT), TENSION | |
| 270 | X-3729-926-1 | BRAKE ASSY (2), T | |
| 271 | 3-738-220-01 | SPRING (MAIN BRAKE 2), TENSION | |
| 272 | X-3733-336-2 | BRAKE ASSY (2) (AT), S | |
| 273 | 3-738-221-01 | SPRING (MAIN BRAKE 1), TENSION | |
| * 274 | X-3746-005-1 | BASE ASSY (G), DRUM | |
| 275 | 3-733-389-11 | SPRING, TENSION | |
| 276 | A-6747-267-A | ARM BLOCK ASSY (S), C ROLLER | |
| 277 | 3-944-033-01 | FLANGE, 7 GUIDE | |
| 278 | 3-736-730-01 | SLEEVE, #7 GUIDE | |
| 279 | 3-749-099-01 | SPRING (#7 GUIDE), COMPRESSION | |
| 280 | X-3727-787-1 | SHUTTLE (RIGHT) ASSY | |
| 281 | X-3729-935-3 | LABLE ASSY (2), S REEL | |
| 282 | 3-736-745-01 | SPRING | |
| 283 | 3-738-284-01 | SPRING, TENSION | |
| 284 | X-3746-004-1 | GROUND ASSY, SHAFT | |
| 285 | 3-736-073-01 | SLIDER, POLYETHYLENE | |
| 286 | X-3743-517-1 | LEVER (S), RELEASE, C ROLLER | |
| 287 | 3-736-735-03 | SPRING, TENSION | |
| 288 | 3-942-867-01 | NUT, AC HEIGHT ADJUSTMENT | |
| M901 | 1-550-656-11 | LOWER DRUM ASSY (DZL-32A-R) | |

## 5-5. MD CHASSIS ASSEMBLY 1


214
201
213
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226
208
203
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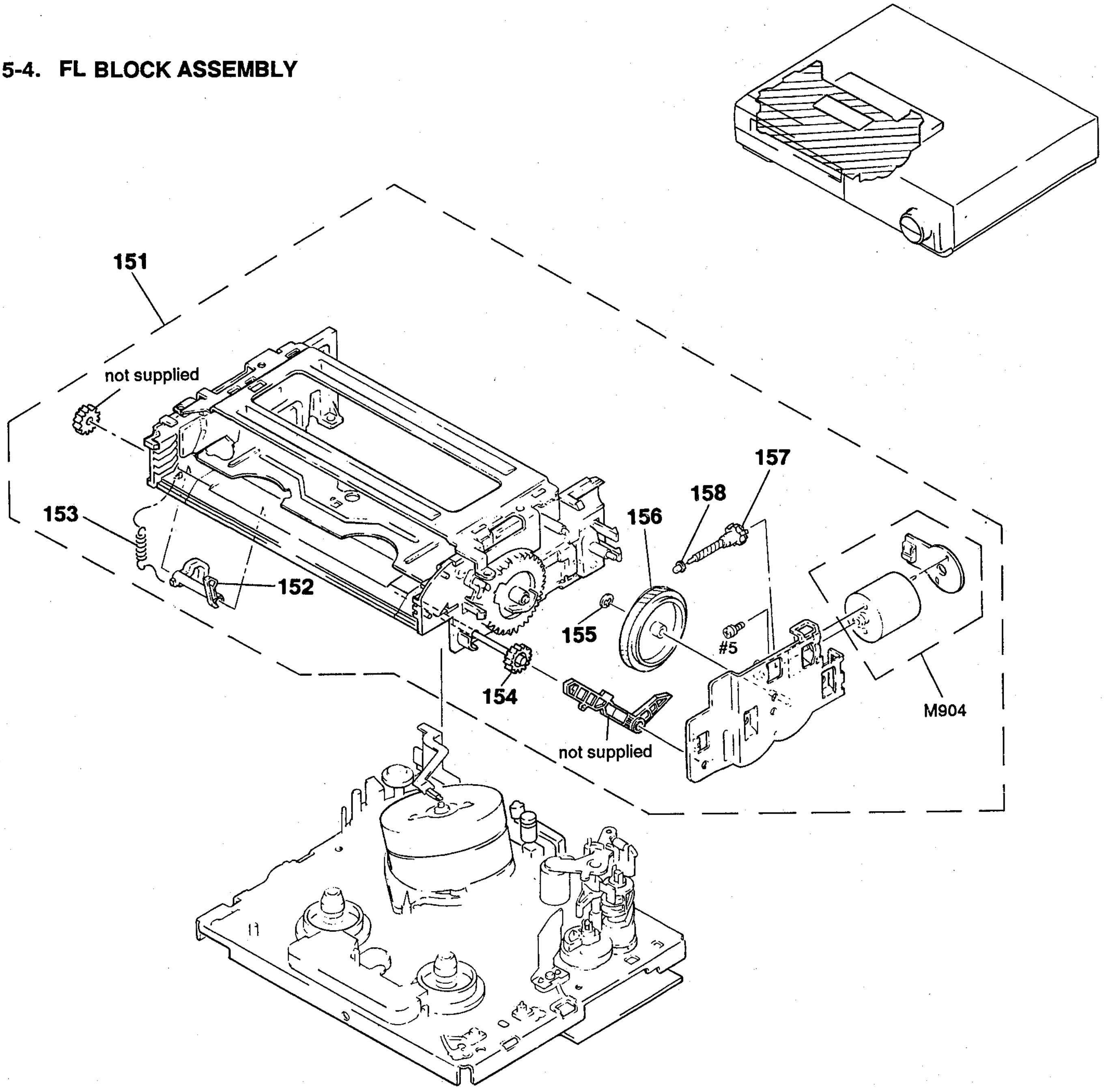
204
#3
220
224
203
221
202
225
201

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 201 | 3-701-438-11 | WASHER, 2.5 | |
| 202 | X-3727-776-1 | ARM ASSY, PENDULUM | |
| 203 | 3-669-595-00 | WASHER (2), STOPPER | |
| 204 | 3-736-172-02 | RELEASE, LOCK, REEL | |
| 205 | X-3727-795-1 | GEAR ASSY, RELAY | |
| 206 | 3-736-074-01 | RETAINER (SMALL), THRUST | |
| 207 | 3-736-037-01 | GEAR, REW | |
| 208 | X-3727-798-1 | TABLE ASSY, REEL | |
| 209 | 3-738-212-21 | RETAINER, THRUST, REEL TABLE | |
| 210 | X-3733-335-1 | BRAKE ASSY (AT), T SOFT | |
| 211 | 3-736-105-01 | ARM, REV BRAKE | |
| 212 | 3-736-143-01 | GEAR, RVS CAM | |
| 213 | X-3729-911-1 | ARM ASSY, RVS | |
| 214 | 3-736-740-01 | NUT (M2X0.25), NYLON | |
| 215 | 3-736-116-01 | GEAR, COMMUNICATION | |
| 216 | X-3727-770-1 | PINCH ROLLER BLOCK ASSY | |
| 217 | 3-884-171-00 | STOPPER | |
| 218 | 3-736-136-01 | CAM, ELEVATOR | |
| 219 | 3-943-700-01 | GEAR (LO), PRESS CAM | |
| 220 | 3-942-828-01 | OPENNER, LID | |
| 221 | 3-738-250-01 | SCREW, AC ADJUSTMENT | |
| 222 | 3-736-025-01 | SPRING (REV BRAKE), TENSION | |
| 223 | 3-736-024-01 | SPRING, TENSION | |
| 224 | 3-736-020-11 | SPRING, COMPRESSION | |
| 225 | 3-942-829-01 | SPRING (2) (ATOM), GROUND, FL | |
| 226 | 3-736-069-01 | RETAINER, SPRING | |

## 5-4. FL BLOCK ASSEMBLY


151
not supplied
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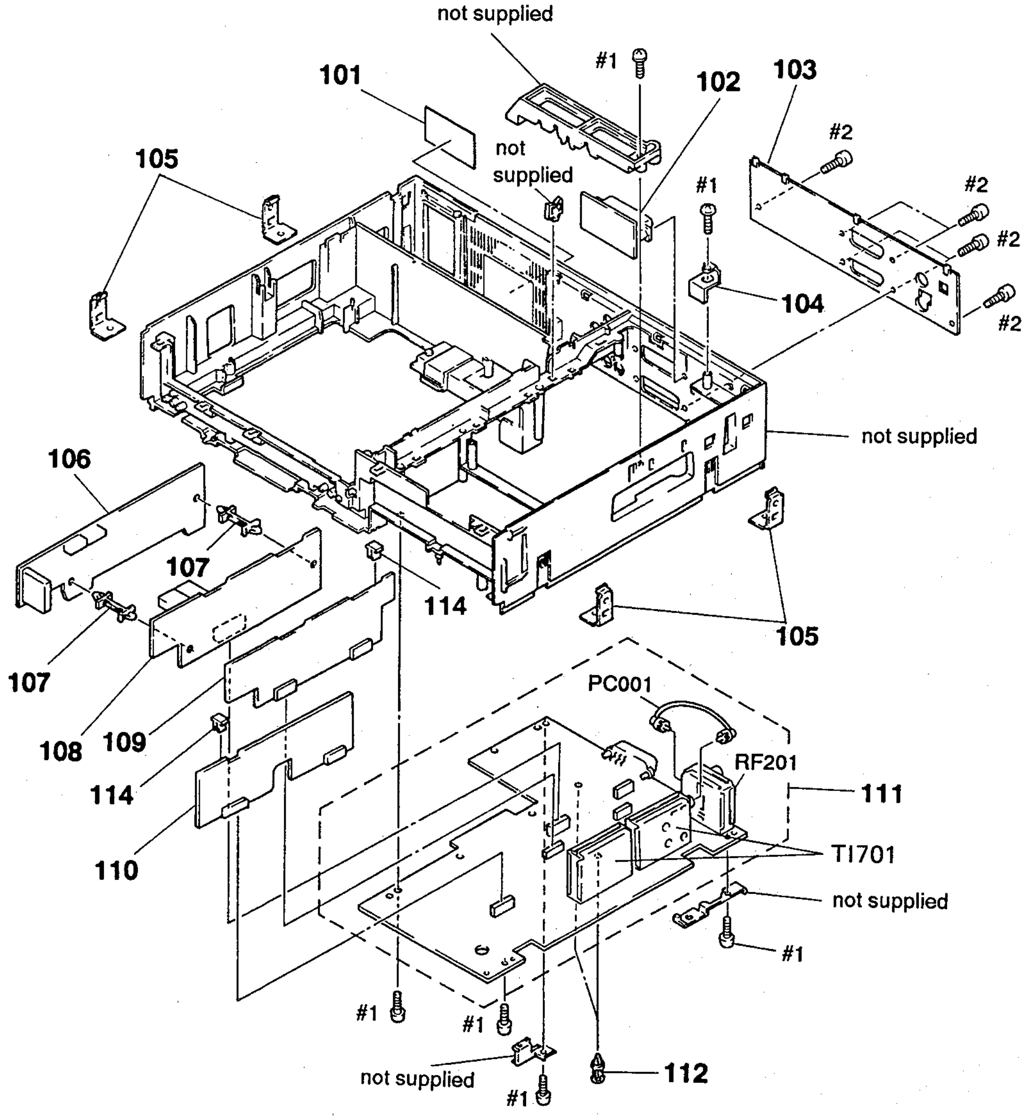
154
not supplied
M904

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 151 | A-6751-445-A | FL BLOCK ASSY (F45) | |
| 152 | 3-736-163-01 | LEVER, ERASING PROTECTION | |
| 153 | 3-739-687-01 | SPRING, TENSION | |
| 154 | X-3727-775-2 | GEAR (RIGHT) ASSY, MIDWAY | |
| 155 | 3-696-510-01 | WASHER (3), STOPPER | |
| 156 | 3-736-164-01 | WHEEL (FL), WORM | |
| 157 | 3-736-100-01 | GEAR (FL), WORM | |
| 158 | 3-716-144-02 | RETAINER, WORM | |
| M904 | X-3727-784-1 | MOTOR ASSY | |

## 5-3. MAIN BOARD BLOCK ASSEMBLY

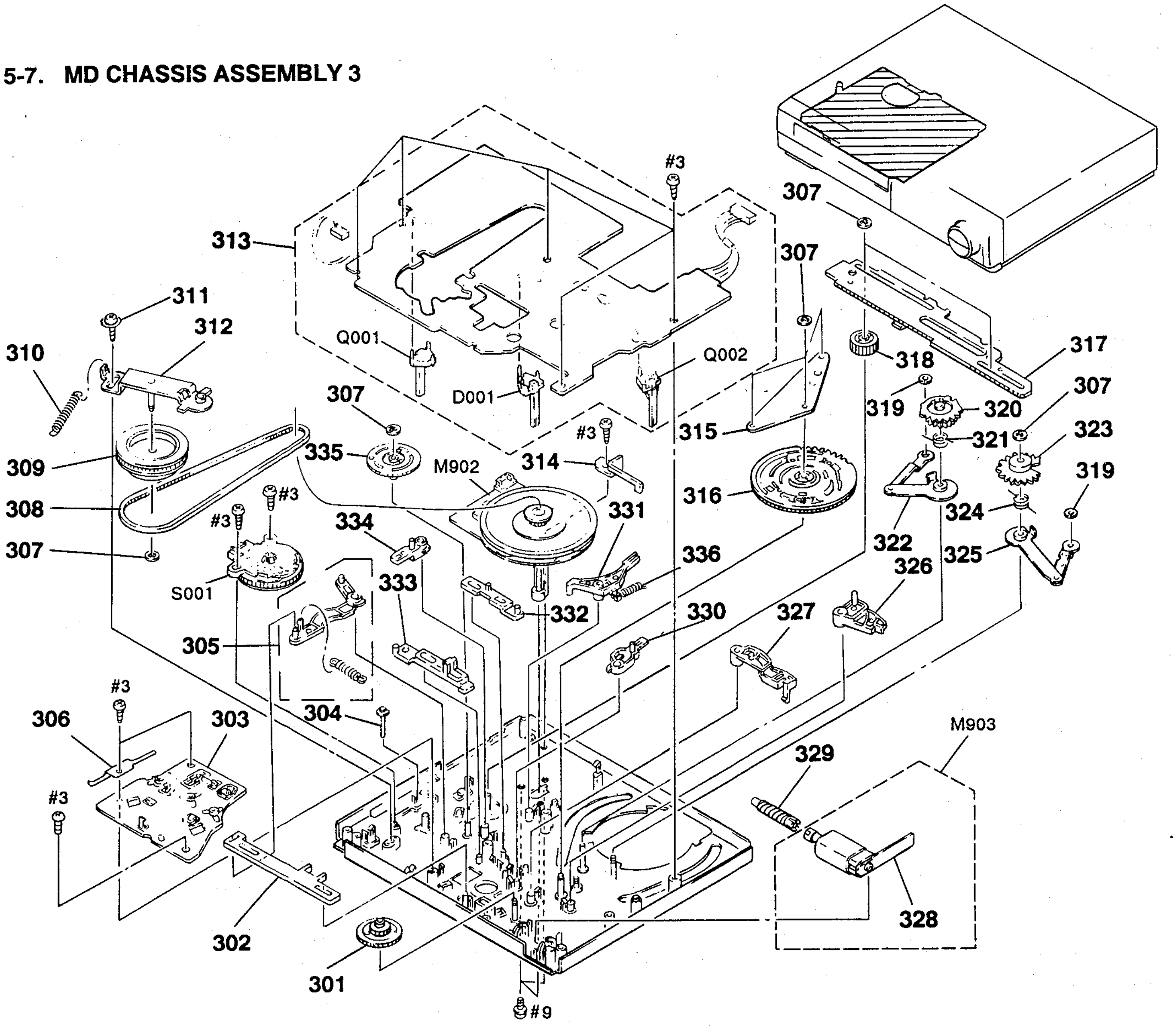


> The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
> Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 101 | 3-945-333-01 | LABEL, MODEL NUMBER (AEP MODEL) | |
| * 101 | 3-946-103-01 | LABEL, MODEL NUMBER (UB MODEL) | |
| * 101 | 3-946-104-01 | LABEL, MODEL NUMBER (VP MODEL) | |
| * 101 | 3-946-105-01 | LABEL, MODEL NUMBER (CP MODEL) | |
| * 101 | 3-946-106-01 | LABEL, MODEL NUMBER (EI MODEL) | |
| * 102 | A-6754-290-A | CP-53 BOAR, COMPLETE (CP MODEL) | |
| 103 | 3-942-331-01 | PLATE, ORNAMENTAL, JACK(EXCEPT CP MODEL) | |
| 103 | 3-942-331-21 | PLATE, ORNAMENTAL, JACK (CP MODEL) | |
| * 104 | 3-741-963-01 | BRACKET, RF | |
| 105 | 3-741-992-01 | STOPPER, UPPER CASE | |
| 106 | A-6726-326-A | PC-54 BOARD, COMPLETE | |
| * 107 | 3-710-673-01 | SUPPORT, PC BOARD | |
| 108 | A-6726-325-A | YP-11 BOARD, COMPLETE | |
| 109 | A-6754-287-A | CP-52 BOAR, COMPLETE (CP MODEL) | |
| * 110 | A-6713-487-A | CV-26 BOARD, COMPLETE (VP MODEL) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 110 | A-6713-488-A | CV-26 BOARD, COMPLETE (EXCEPT VP MODEL) | |
| * 111 | A-6756-349-A | MA-125 BOARD, COMPLETE (VP MODEL) | |
| * 111 | A-6756-346-A | MA-125 BOARD, COMPLETE (UB MODEL) | |
| * 111 | A-6756-347-A | MA-125 BOARD, COMPLETE (CP MODEL) | |
| * 111 | A-6756-348-A | MA-125 BOARD, COMPLETE (EI MODEL) | |
| * 111 | A-6756-350-A | MA-125 BOARD, COMPLETE (AEP MODEL) | |
| 112 | 3-682-057-11 | SPACER (SMALL) | |
| * 113 | 3-738-240-11 | KNOB, PC BOARD | |
| PC001 | 1-558-924-21 | CABLE, PIN | |
| ⚠RF201 | 1-466-328-11 | MODULATOR, RF (RFU-2017) | |
| ⚠RF201 | 1-466-347-11 | MODULATOR, RF (RFU-2017) (UB/EI MODEL) | |
| ⚠TI701 | 1-465-744-11 | TUNER, VIF (BTF-2U601) (UB MODEL) | |
| ⚠TI701 | 1-465-745-11 | TUNER, VIF (BTF-2U401) (VP MODEL) | |
| ⚠TI701 | 1-465-746-11 | TUNER, VIF (BTF-2U402) (AEP/CP MODEL) | |
| ⚠TI701 | 1-465-747-11 | TUNER, VIF (BTF-2U403) (EI MODEL) | |

## 5-7. MD CHASSIS ASSEMBLY 3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Q001
Q002
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307
D001
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#3
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309
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M902
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#3
#3
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S001
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#3
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M903
#3
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301
#9

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 301 | 3-736-015-01 | WHEEL (CAM), WORM | |
| 302 | 3-736-158-01 | PLATE, SLIDE, PENDULUM | |
| 303 | A-6739-084-A | CHASSIS BLOCK ASSY, SUB | |
| 304 | 3-736-091-01 | PIN, SWITCH | |
| 305 | X-3729-924-1 | ARM, PENDULUM FUNCTION | |
| 306 | 3-741-950-01 | SPRING (AT), LEAF, SC GROUND | |
| 307 | 3-669-595-00 | WASHER (2), STOPPER | |
| 308 | 3-736-013-01 | BELT, TIMING | |
| 309 | X-3727-782-1 | PULLEY ASSY | |
| 310 | 3-736-089-01 | SPRING, TENSION | |
| 311 | 3-733-386-01 | SCREW (3X8), WASHER | |
| 312 | X-3727-761-1 | ARM ASSY, ADJUSTMENT | |
| 313 | A-6754-356-A | MD-40 BOARD, COMPLETE | |
| 314 | 3-736-744-01 | RETAINER, ROTOR | |
| 315 | 3-733-396-01 | HOLDER, CAM GEAR | |
| 316 | 3-736-176-01 | GEAR, CAM | |
| 317 | 3-736-177-01 | PLATE, SLIDE, MODE | |
| 318 | 3-733-394-01 | GEAR, RVS RELAY | |
| 319 | 3-736-073-01 | SLIDER, POLYETHYLENE | |
| 320 | 3-736-148-01 | GEAR (RIGHT), THREADING | |
| 321 | 3-736-092-01 | SPRING (RIGHT), TORSION | |
| 322 | X-3727-777-1 | ARM (RIGHT) ASSY, THREADING | |
| 323 | 3-736-147-01 | GEAR (LEFT), THREADING | |
| 324 | 3-736-040-01 | SPRING (LEFT), TORSION | |
| 325 | X-3727-778-1 | ARM (LEFT) ASSY, THREADING | |
| 326 | 3-736-142-01 | ARM, TENSION REGULATOR FUNCTION | |
| 327 | 3-736-140-01 | ARM, S TAKE-UP | |
| * 328 | 1-633-460-11 | PC BOAD, CA-41 | |
| 329 | 3-733-395-01 | GEAR (CAM), WORM | |
| 330 | 3-733-397-01 | ARM, BRAKE FUNCTION | |
| 331 | X-3733-338-1 | BRAKE ASSY (AT), CAP | |
| 332 | 3-733-398-01 | PLATE, SLIDE, BRAKE | |
| 333 | 3-736-103-01 | PLATE, SLIDE, LIMITER | |
| 334 | 3-736-016-01 | ARM, LIMITER FUNCTION | |
| 335 | 3-736-170-01 | GEAR, RKB CAM | |
| 336 | 3-738-237-01 | SPRING (CAP BRAKE), TENSION | |
| D001 | 8-719-985-00 | DIODE GL451VS1 (LED) | |
| M902 | 8-835-394-11 | MOTOR, DC U-26F | |
| M903 | X-3733-302-1 | MOTOR ASSY, CAM | |
| Q001 | 8-729-926-31 | PHOTO TRANSISTOR PT483F1S | |
| S001 | 1-692-062-21 | SWITCH, ROTARY | |

**CP-52**

## SECTION 6
## ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by refer-ence number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| * | A-6754-287-A | CP-52 BOARD, COMPLETE (CP MODEL) | | | | |
| | | ********************* | | | | |
| | | | | | | (Ref. No 2,000 Series) |
| | | 〈 CAPACITOR 〉 | | | | |
| C101 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C102 | 1-126-301-11 | ELECT | 1uF | 20% | 50V | |
| C103 | 1-244-463-00 | ELECT | 0.1uF | 20% | 50V | |
| C104 | 1-126-301-11 | ELECT | 1uF | 20% | 50V | |
| C105 | 1-126-301-11 | ELECT | 1uF | 20% | 50V | |
| C107 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C181 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | |
| C182 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C202 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C203 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C204 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C205 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C206 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C207 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C208 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V | |
| C209 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C280 | 1-162-284-31 | CERAMIC | 150PF | 10% | 50V | |
| C281 | 1-162-284-31 | CERAMIC | 150PF | 10% | 50V | |
| C282 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | |
| C283 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | |
| | | 〈 CONNECTOR 〉 | | | | |
| CN101 | 1-573-122-11 | SOCKET, CONNECTOR 12P | | | | |
| CN102 | 1-573-122-11 | SOCKET, CONNECTOR 12P | | | | |
| CN103 | 1-506-490-21 | PIN, CONNECTOR 11P | | | | |
| | | 〈 DIODE 〉 | | | | |
| D001 | 8-719-940-82 | DIODE SLR-34MC3 | | | | |
| D180 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |
| D181 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |
| D182 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |
| D183 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |
| D280 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |
| D281 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| | | 〈 IC 〉 | | | | |
| IC101 | 8-759-504-94 | IC BA7630S | | | | |
| IC201 | 8-759-509-16 | IC XRU4053B | | | | |
| | | 〈 COIL 〉 | | | | |
| L101 | 1-408-421-00 | INDUCTOR 100uH | | | | |
| L201 | 1-408-421-00 | INDUCTOR 100uH | | | | |
| L280 | 1-410-336-11 | INDUCTOR 220uH | | | | |
| L281 | 1-410-336-11 | INDUCTOR 220uH | | | | |
| | | 〈 TRANSISTOR 〉 | | | | |
| Q101 | 8-729-119-89 | TRANSISTOR 2SC2785-HFE | | | | |
| Q102 | 8-729-900-89 | TRANSISTOR DTC144ES | | | | |
| Q103 | 8-729-920-68 | TRANSISTOR 2SA933S | | | | |
| Q126 | 8-729-900-89 | TRANSISTOR DTC144ES | | | | |
| Q127 | 8-729-920-68 | TRANSISTOR 2SA933S | | | | |
| Q180 | 8-729-119-89 | TRANSISTOR 2SC2785-HFE | | | | |
| Q201 | 8-729-119-89 | TRANSISTOR 2SC2785-HFE | | | | |
| Q202 | 8-729-119-89 | TRANSISTOR 2SC2785-HFE | | | | |
| Q203 | 8-729-119-89 | TRANSISTOR 2SC2785-HFE | | | | |
| | | 〈 RESISTOR 〉 | | | | |
| R101 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R102 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R103 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R104 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R106 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R107 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W | |
| R108 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W | |
| R109 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R110 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R111 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R123 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R150 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W | |
| R151 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R180 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R181 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W | |
| R182 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W | |
| R201 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R202 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R203 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R204 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R205 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R206 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R207 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R208 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R209 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R210 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W | |
| R291 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R391 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |

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* 1-639-198-11 CP-53 BOARD (CP MODEL)
***********
(Ref.No 3,000 Series)

( CONNECTOR )

| Ref. No. | Part No. | Description |
|---|---|---|
| * CN121 | 1-506-490-21 | PIN, CONNECTOR 11P |
| CN122 | 1-506-485-11 | PIN, CONNECTOR 6P |

( JACK )

| Ref. No. | Part No. | Description |
|---|---|---|
| CNJ120 | 1-561-534-41 | SOCKET 21P (CANAL PLUS) |

( DIODE )

| Ref. No. | Part No. | Description |
|---|---|---|
| D190 | 8-719-109-97 | DIODE RD6.8ES-B2 |
| D191 | 8-719-109-97 | DIODE RD6.8ES-B2 |

( RESISTOR )

| Ref. No. | Part No. | Description | | | |
|---|---|---|---|---|---|
| R120 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W |

*************************************************************

* A-6713-487-A CV-26 BOARD, COMPLETE (VP MODEL)
*********************

* A-6713-488-A CV-26 BOARD, COMPLETE (EXCEPT VP MODEL)
*********************
(Ref.No 8,000 Series)

( CAPACITOR )

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| C401 | 1-162-847-11 | CERAMIC | 0.047uF | 20% | 16V | |
| C402 | 1-162-854-11 | CERAMIC | 0.0015uF | 20% | 16V | |
| C403 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C404 | 1-102-961-00 | CERAMIC | 27PF | 5% | 50V | |
| C405 | 1-164-060-11 | CERAMIC | 39PF | 5% | 50V | |
| C406 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C407 | 1-164-058-11 | CERAMIC | 33PF | 5% | 50V | (VP MODEL) |
| C408 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C410 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C411 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C413 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C414 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C415 | 1-162-203-31 | CERAMIC | 15PF | 5% | 50V | |
| C416 | 1-164-052-11 | CERAMIC | 18PF | 5% | 50V | |
| C417 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C419 | 1-162-835-11 | CERAMIC | 0.0047uF | 20% | 16V | |
| C420 | 1-164-085-11 | CERAMIC | 0.001uF | 10% | 50V | |
| C421 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V | |
| C450 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C460 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C466 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C467 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C491 | 1-161-772-11 | CERAMIC | 0.1uF | 10% | 25V | |
| C492 | 1-164-082-11 | CERAMIC | 560PF | 10% | 50V | |
| C493 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V | |
| C494 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C495 | 1-162-843-11 | CERAMIC | 0.022uF | 20% | 16V | |
| C496 | 1-102-122-00 | CERAMIC | 0.0027uF | 10% | 50V | |
| C497 | 1-102-980-00 | CERAMIC | 270PF | 5% | 50V | |
| C498 | 1-102-980-00 | CERAMIC | 270PF | 5% | 50V | |
| C801 | 1-164-081-11 | CERAMIC | 470PF | 10% | 50V | (VP MODEL) |
| C802 | 1-162-827-11 | CERAMIC | 0.001uF | 20% | 16V | (VP MODEL) |
| C803 | 1-162-835-11 | CERAMIC | 0.0047uF | 20% | 16V | (VP MODEL) |
| C804 | 1-162-847-11 | CERAMIC | 0.047uF | 20% | 16V | (VP MODEL) |
| C805 | 1-162-843-11 | CERAMIC | 0.022uF | 20% | 16V | (VP MODEL) |
| C806 | 1-164-098-11 | CERAMIC | 0.047uF | | 12V | (VP MODEL) |

# CV-26

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C807 | 1-162-835-11 | CERAMIC 0.0047uF 20% 16V | (VP MODEL) |
| C808 | 1-161-772-11 | CERAMIC 0.1uF 10% 25V | (VP MODEL) |
| | | ⟨ CONNECTOR ⟩ | |
| * CN401 | 1-563-464-11 | SOCKET, CONNECTOR 10P | |
| * CN402 | 1-563-464-11 | SOCKET, CONNECTOR 10P | |
| | | ⟨ TRIMMER ⟩ | |
| CV401 | 1-141-227-00 | CAP, TRIMMER 20PF | |
| | | ⟨ DIODE ⟩ | |
| D401 | 8-719-911-19 | DIODE 1SS119 | |
| D402 | 8-719-911-19 | DIODE 1SS119 | |
| D403 | 8-719-911-19 | DIODE 1SS119 | |
| D404 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D406 | 8-719-911-19 | DIODE 1SS119 | |
| D407 | 8-719-974-59 | DIODE 1SR139-100 | |
| | | ⟨ IC ⟩ | |
| IC401 | 8-759-634-22 | IC M50554-182SP | |
| IC490 | 8-759-996-03 | IC LVA519S | |
| IC801 | 8-759-054-25 | IC SAA4700 (VP MODEL) | |
| IC802 | 8-759-147-30 | IC uPD75004GB-VSX182 (VP MODEL) | |
| | | ⟨ COIL ⟩ | |
| L401 | 1-408-421-00 | INDUCTOR 100uH | |
| L402 | 1-412-470-21 | INDUCTOR 22uH | |
| L403 | 1-408-415-00 | INDUCTOR 33uH (VP MODEL) | |
| L404 | 1-408-421-00 | INDUCTOR 100uH | |
| L405 | 1-408-414-00 | INDUCTOR 27uH | |
| L406 | 1-408-415-00 | INDUCTOR 33uH | |
| L408 | 1-408-421-00 | INDUCTOR 100uH | |
| L490 | 1-408-421-00 | INDUCTOR 100uH | |
| L841 | 1-408-409-00 | INDUCTOR 10uH | |
| | | ⟨ TRANSISTOR ⟩ | |
| Q401 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q402 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (VP MODEL) | |
| Q403 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q404 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q405 | 8-729-904-39 | TRANSISTOR DTC114TS | |
| Q406 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q407 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q451 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| | | ⟨ RESISTOR ⟩ | |
| R401 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R402 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R403 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R404 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R405 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R406 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R407 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R408 | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R409 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R410 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R411 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R413 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R414 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R415 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R418 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R419 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R420 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R424 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R425 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R426 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R427 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R428 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R429 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R430 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| R431 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R432 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R433 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R434 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R435 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R436 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R437 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R438 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| R440 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R441 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R460 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R461 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R463 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R490 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R491 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R492 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R493 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R494 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R495 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R496 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R801 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R802 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R803 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R804 | 1-249-439-11 | CARBON 68K 5% 1/4W | (VP MODEL) |
| R805 | 1-249-428-11 | CARBON 8.2K 5% 1/4W | (VP MODEL) |
| R806 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | (VP MODEL) |
| R811 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R812 | 1-249-429-11 | CARBON 10K 5% 1/4W | (VP MODEL) |
| R850 | 1-249-433-11 | CARBON 22K 5% 1/4W | (VP MODEL) |
| | | ( VARIABLE RESISTOR ) | |
| RV491 | 1-238-015-11 | RES, ADJ, CARBON 4.7K | |
| | | ( CRYSTAL ) | |
| X401 | 1-577-289-11 | VIBRATOR, CRYSTAL 11.7MHz | |
| X801 | 1-577-101-11 | VIBRATOR, CERAMIC 4.19MHz | (VP MODEL) |
| ************************************************************************ | | | |
| * | A-6756-346-A | MA-125 BOARD, COMPLETE (UB MODEL)<br>********************** | |
| * | A-6756-347-A | MA-125 BOARD, COMPLETE (CP MODEL)<br>********************** | |
| * | A-6756-348-A | MA-125 BOARD, COMPLETE (EI MODEL)<br>********************** | |
| * | A-6756-349-A | MA-125 BOARD, COMPLETE (VP MODEL)<br>********************** | |
| * | A-6756-370-A | MA-125 BOARD, COMPLETE (AEP MODEL)<br>********************** | |
| | | | (Ref.No 1,000 Series) |
| | 1-558-924-21 | CABLE, PIN | |
| | 3-682-057-11 | SPACER (SMALL) | |
| | | ( BUZZER ) | |
| BZ501 | 1-529-070-11 | BUZZER | |
| | | ( CAPACITOR ) | |
| C101 | 1-162-849-11 | CERAMIC 0.068uF 10% 16V | |
| C102 | 1-126-233-11 | ELECT 22uF 20% 50V | |
| C103 | 1-124-443-00 | ELECT 100uF 20% 10V | |
| C104 | 1-161-039-00 | CERAMIC 0.001uF 10% 50V | |
| C105 | 1-162-849-11 | CERAMIC 0.068uF 10% 16V | |
| C106 | 1-124-925-11 | ELECT 2.2uF 20% 100V | |
| C107 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C108 | 1-161-047-00 | CERAMIC 0.0047uF 10% 50V | |
| C110 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C111 | 1-124-477-11 | ELECT 47uF 20% 25V | |
| C146 | 1-162-294-31 | CERAMIC 0.001uF 10% 50V | |
| C201 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C202 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C203 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C204 | 1-101-361-00 | CERAMIC 150PF 5% 50V | (EXCEPT VP MODEL) |
| C205 | 1-164-081-11 | CERAMIC 470PF 10% 50V | |
| C206 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C207 | 1-126-233-11 | ELECT 22uF 20% 50V | |
| C208 | 1-126-233-11 | ELECT 22uF 20% 50V | |
| C210 | 1-162-197-31 | CERAMIC 6.8PF 10% 50V | |
| C211 | 1-124-589-11 | ELECT 47uF 20% 16V | |
| C212 | 1-124-477-11 | ELECT 47uF 20% 25V | |
| C213 | 1-124-589-11 | ELECT 47uF 20% 16V | |
| C214 | 1-101-361-00 | CERAMIC 150PF 5% 50V | |
| C216 | 1-124-477-11 | ELECT 47uF 20% 25V | |

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| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| C217 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V | |
| C218 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V | (AEP, UB, VP MODEL) |
| C219 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C221 | 1-124-234-00 | ELECT | 22uF | 20% | 16V | |
| C222 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C223 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C224 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C225 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | |
| C231 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | |
| C292 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V | |
| C304 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C305 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V | |
| C306 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C307 | 1-164-084-11 | CERAMIC | 820PF | 10% | 50V | |
| C308 | 1-164-085-11 | CERAMIC | 0.001uF | 10% | 50V | |
| C309 | 1-126-233-11 | ELECT | 22uF | 20% | 50V | (EXCEPT EI MODEL) |
| C310 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V | |
| C312 | 1-130-488-00 | MYLAR | 0.027uF | 5% | 50V | |
| C313 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C314 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C315 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | (EXCEPT AEP MODEL) |
| C316 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C317 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C318 | 1-164-086-11 | CERAMIC | 0.0012uF | 10% | 50V | |
| C319 | 1-102-978-00 | CERAMIC | 220PF | 5% | 50V | |
| C320 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C320 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C321 | 1-109-675-11 | MICA | 120PF | 1% | 500V | |
| C322 | 1-136-558-11 | FILM | 0.0039uF | 10% | 630V | |
| C323 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C324 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | |
| C325 | 1-164-087-11 | CERAMIC | 0.0015uF | 10% | 50V | |
| C326 | 1-164-083-11 | CERAMIC | 680PF | 10% | 50V | |
| C327 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C330 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C332 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V | |
| C391 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V | |
| C401 | 1-130-495-00 | MYLAR | 0.1uF | 5% | 50V | |
| C402 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | (AEP MODEL) |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| C403 | 1-130-487-00 | MYLAR | 0.022uF | 5% | 50V | |
| C405 | 1-126-101-11 | ELECT | 100uF | 20% | 16V | |
| C407 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C410 | 1-124-234-00 | ELECT | 22uF | 20% | 16V | |
| C411 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V | |
| C501 | 1-124-477-11 | ELECT | 47uF | 20% | 25V | |
| C502 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V | |
| C503 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C504 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V | |
| C505 | 1-124-478-11 | ELECT | 100uF | 20% | 25V | |
| C512 | 1-164-052-11 | CERAMIC | 18PF | 5% | 50V | |
| C513 | 1-164-052-11 | CERAMIC | 18PF | 5% | 50V | |
| C514 | 1-164-087-11 | CERAMIC | 0.0015uF | 10% | 50V | |
| C700 | 1-126-233-11 | ELECT | 22uF | 20% | 50V | |
| C702 | 1-124-119-00 | ELECT | 330uF | 20% | 16V | |
| C703 | 1-124-122-11 | ELECT | 100uF | 20% | 50V | |
| C705 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V | |
| C710 | 1-126-233-11 | ELECT | 22uF | 20% | 50V | |
| C711 | 1-164-056-11 | CERAMIC | 27PF | 5% | 50V | |
| C712 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V | |
| C713 | 1-164-056-11 | CERAMIC | 27PF | 5% | 50V | (UB MODEL) |
| C713 | 1-164-064-11 | CERAMIC | 56PF | 5% | 50V | (EXCEPT UB MODEL) |
| C715 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C716 | 1-101-886-00 | CERAMIC | 62PF | 5% | 50V | (EXCEPT UB MODEL) |
| C716 | 1-164-068-11 | CERAMIC | 82PF | 5% | 50V | (UB MODEL) |
| C717 | 1-124-034-51 | ELECT | 33uF | 20% | 16V | |
| C718 | 1-164-089-11 | CERAMIC | 0.0022uF | | 50V | |
| C720 | 1-162-842-11 | CERAMIC | 0.018uF | 10% | 16V | |
| C721 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V | |
| C751 | 1-162-827-11 | CERAMIC | 0.001uF | 10% | 16V | (VP MODEL) |
| C752 | 1-162-827-11 | CERAMIC | 0.001uF | 10% | 16V | (VP MODEL) |
| C753 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V | (VP MODEL) |
| C754 | 1-162-827-11 | CERAMIC | 0.001uF | 10% | 16V | (VP MODEL) |
| C755 | 1-162-827-11 | CERAMIC | 0.001uF | 10% | 16V | (VP MODEL) |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C759 | 1-124-477-11 | ELECT 47uF 20% 25V | |
| C760 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C761 | 1-164-050-11 | CERAMIC 15PF 5% 50V | (UB MODEL) |
| C762 | 1-124-477-11 | ELECT 47uF 20% 25V | |
| | | ( CONNECTOR ) | |
| * CN101 | 1-508-742-00 | PIN, CONNECTOR 3P | |
| * CN102 | 1-508-742-00 | PIN, CONNECTOR 3P | |
| CN201 | 1-568-016-11 | SOCKET 21P | |
| CN202 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN203 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| * CN301 | 1-508-742-00 | PIN, CONNECTOR 3P | |
| * CN302 | 1-508-797-00 | PIN, CONNECTOR 4P | |
| * CN303 | 1-508-742-00 | PIN, CONNECTOR 3P | |
| * CN401 | 1-506-981-11 | PIN, CONNECTOR 10P | |
| * CN402 | 1-506-981-11 | PIN, CONNECTOR 10P | |
| CN501 | 1-569-344-11 | CONNECTOR, BOARD TO BOARD 19P | |
| CN502 | 1-569-344-11 | CONNECTOR, BOARD TO BOARD 19P | |
| CN601 | 1-573-121-11 | PIN, CONNECTOR 12P (CP MODEL) | |
| CN602 | 1-569-005-11 | CONNECTOR, (S) TERMINAL 12P (CP MODEL) | |
| CN603 | 1-573-121-11 | PIN, CONNECTOR 12P (CP MODEL) | |
| * CN701 | 1-565-439-11 | PIN, CONNECTOR (PCB) 10P | |
| * CN702 | 1-565-343-11 | PIN, CONNECTOR (PC BOARD) 7P | |
| CN903 | 1-506-475-11 | CONNECTOR 10P, MALE | |
| CN904 | 1-569-338-11 | CONNECTOR, BOARD TO BOARD 19P | |
| CN907 | 1-569-338-11 | CONNECTOR, BOARD TO BOARD 19P | |
| | | ( DIODE ) | |
| D201 | 8-719-974-59 | DIODE 1SR139-100 | |
| D202 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D203 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D206 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D207 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D208 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D209 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D210 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D220 | 8-719-987-06 | DIODE WG713A | |
| D220 | 8-719-911-19 | DIODE 1SS119 | |
| D250 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D301 | 8-719-987-06 | DIODE WG713A | |
| D301 | 8-719-911-19 | DIODE 1SS119 | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D302 | 8-719-987-06 | DIODE WG713A (EXCEPT EI MODEL) | |
| D404 | 8-719-109-85 | DIODE RD5.1ES-B2 | |
| D501 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D505 | 8-719-987-06 | DIODE WG713A | |
| D505 | 8-719-911-19 | DIODE 1SS119 | |
| D701 | 8-719-982-26 | DIODE MTZJ-33B | |
| | | ( IC ) | |
| IC101 | 8-759-246-14 | IC TA8823N | |
| IC201 | 8-759-007-21 | IC MC74HC4053N | |
| IC301 | 8-759-805-20 | IC LA7297 | |
| IC401 | 8-759-503-91 | IC TL082ACP | |
| IC402 | 8-759-008-70 | IC LM358N | |
| IC404 | 8-759-983-45 | IC BA6238A | |
| IC501 | 8-752-817-87 | IC CXP80624-209Q (CP, UB MODEL) | |
| IC501 | 8-752-832-90 | IC CXP80624-253Q (AEP, EI, VP MODEL) | |
| | | ( COIL ) | |
| L101 | 1-408-409-00 | INDUCTOR 10uH | |
| L201 | 1-410-521-11 | INDUCTOR 100uH (EXCEPT CP MODEL) | |
| L202 | 1-408-421-00 | INDUCTOR 100uH (EXCEPT CP MODEL) | |
| L203 | 1-408-421-00 | INDUCTOR 100uH (EXCEPT CP MODEL) | |
| L204 | 1-408-425-00 | INDUCTOR 220uH | |
| L206 | 1-408-421-00 | INDUCTOR 100uH | |
| L207 | 1-408-422-00 | INDUCTOR 120uH | |
| L208 | 1-410-521-11 | INDUCTOR 100uH | |
| L209 | 1-408-415-00 | INDUCTOR 33uH | |
| L250 | 1-410-522-11 | INDUCTOR 120uH | |
| L251 | 1-410-521-11 | INDUCTOR 100uH (CP MODEL) | |
| L252 | 1-410-521-11 | INDUCTOR 100uH (CP MODEL) | |
| L253 | 1-410-521-11 | INDUCTOR 100uH (CP MODEL) | |
| L291 | 1-410-336-11 | INDUCTOR 220uH | |
| L292 | 1-410-336-11 | INDUCTOR 220uH | |
| L301 | 1-407-503-00 | INDUCTOR 8.2mH | |
| L302 | 1-410-091-31 | INDUCTOR 22mH | |
| L303 | 1-408-409-00 | INDUCTOR 10uH | |
| L309 | 1-410-687-11 | INDUCTOR 1.2mH | |
| L401 | 1-408-409-00 | INDUCTOR 10uH | |
| L501 | 1-408-409-00 | INDUCTOR 10uH | |
| L550 | 1-410-502-11 | INDUCTOR 2.7uH | |
| L551 | 1-410-502-11 | INDUCTOR 2.7uH | |
| L552 | 1-410-502-11 | INDUCTOR 2.7uH | |

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| L553 | 1-410-502-11 | INDUCTOR 2.7uH | |
| L554 | 1-410-522-11 | INDUCTOR 120uH | |
| L555 | 1-410-522-11 | INDUCTOR 120uH | |
| L701 | 1-408-409-00 | INDUCTOR 10uH | |
| L702 | 1-408-425-00 | INDUCTOR 220uH | |
| L703 | 1-408-413-00 | INDUCTOR 22uH | |
| L705 | 1-408-413-00 | INDUCTOR 22uH (UB MODEL) | |
| L705 | 1-408-415-00 | INDUCTOR 33uH (EXCEPT UB MODEL) | |
| L706 | 1-410-509-11 | INDUCTOR 10uH | |
| L710 | 1-408-413-00 | INDUCTOR 22uH | |
| | | ( TRANSISTOR ) | |
| Q201 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q202 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q203 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q204 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q205 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q206 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q207 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q210 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q220 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q301 | 8-729-111-55 | TRANSISTOR 2SC1509 | |
| Q302 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q401 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q402 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q501 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q502 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q503 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q710 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q711 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q712 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q726 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q751 | 8-729-111-55 | TRANSISTOR 2SC1509 | |
| | | ( RESISTOR ) | |
| R102 | 1-249-439-11 | CARBON 68K 5% 1/4W | |
| R103 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R104 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R106 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R107 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R108 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R110 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R112 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R154 | 1-247-901-11 | CARBON 820K 5% 1/4W | |
| R201 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R202 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R203 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R204 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R205 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R206 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R207 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R208 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R209 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R210 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R211 | 1-249-439-11 | CARBON 68K 5% 1/4W | |
| R212 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R213 | 1-249-417-11 | CARBON 1K 5% 1/4W | (VP MODEL) |
| R213 | 1-249-429-11 | CARBON 10K 5% 1/4W | (EXCEPT VP MODEL) |
| R214 | 1-249-415-11 | CARBON 680 5% 1/4W | (VP MODEL) |
| R214 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | (EXCEPT VP MODEL) |
| R215 | 1-249-414-11 | CARBON 560 5% 1/4W | (VP MODEL) |
| R215 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | (EXCEPT VP MODEL) |
| R216 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R217 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R218 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R220 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R221 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R222 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R223 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R224 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R226 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R227 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R228 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R229 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R240 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R303 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R304 | 1-247-885-00 | CARBON 180K 5% 1/4W | |
| R305 | 1-249-429-11 | CARBON 10K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R306 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R307 | 1-249-436-11 | CARBON 39K 5% 1/4W | |
| R308 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R309 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R310 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R311 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R312 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R313 | 1-249-428-11 | CARBON 8.2K 5% 1/4W | |
| R315 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R316 | 1-249-407-11 | CARBON 150 5% 1/4W | |
| R317 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R318 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R319 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R320 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R321 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R322 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R323 | 1-249-387-11 | CARBON 3.3 5% 1/4W | |
| R330 | 1-249-393-11 | CARBON 10 5% 1/4W | |
| R331 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R332 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R333 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R401 | 1-247-885-00 | CARBON 180K 5% 1/4W | |
| R402 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R403 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R404 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R405 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R406 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R408 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R409 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R410 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R411 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R412 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R413 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R414 | 1-249-436-11 | CARBON 39K 5% 1/4W | |
| R418 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R501 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R502 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R503 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R505 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R510 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R519 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R520 | 1-249-433-11 | CARBON 22K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R521 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R522 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R523 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R524 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R525 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R526 | 1-247-705-11 | CARBON 270 5% 1/4W | |
| R527 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R529 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R530 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R533 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R535 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R536 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R551 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R552 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R553 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R554 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R555 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R556 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R557 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R559 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R560 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R562 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R563 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R564 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R700 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R703 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R709 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R712 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R713 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R714 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R715 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R716 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R717 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R720 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R722 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R723 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R725 | 1-247-826-00 | CARBON 620 5% 1/4W | (UB MODEL) |
| R725 | 1-249-417-11 | CARBON 1K 5% 1/4W | (EXCEPT UB MODEL) |
| R728 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R732 | 1-249-417-11 | CARBON 1K 5% 1/4W | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R735 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |
| R737 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W |
| R759 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W |
| R760 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W |
| R761 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R762 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W |
| R999 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| | | 〈 MODULATOR 〉 | | | |
| ⚠RF201 | 1-466-328-11 | MODULATOR, RF (RFU-2017) (AEP, CP, VP MODEL) | | | |
| ⚠RF201 | 1-466-347-11 | MODULATOR, RF (RFU-2024) (UB, EI MODEL) | | | |
| | | 〈 VARIABLE RESISTOR 〉 | | | |
| RV301 | 1-238-021-11 | RES, ADJ, CARBON 220K | | | |
| RV501 | 1-238-016-11 | RES, ADJ, CARBON 10K | | | |
| | | 〈 TRANCE 〉 | | | |
| T301 | 1-433-330-11 | TRANSFORMER, BIAS OSCILLATION | | | |
| | | 〈 TUNER 〉 | | | |
| ⚠TI701 | 1-465-744-11 | TUNER, VIF (BTF-2U601) (UB MODEL) | | | |
| ⚠TI701 | 1-465-745-11 | TUNER, VIF (BTF-2C401) (VP MODEL) | | | |
| ⚠TI701 | 1-465-746-11 | TUNER, VIF (BTF-2C402) (AEP, CP MODEL) | | | |
| ⚠TI701 | 1-465-747-11 | TUNER, VIF (BTF-2C403) (EI MODEL) | | | |
| | | 〈 CRYSTAL 〉 | | | |
| X501 | 1-578-774-11 | VIBRATOR, CRYSTAL 12MHz | | | |

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A-6754-356-A MD-40 BOARD, COMPLETE
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(Ref.No 2,000 Series)

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | 1-691-643-11 | CONNECTOR, BOARD TO BOARD | | | |
| | | 〈 CAPACITOR 〉 | | | |
| C001 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C002 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C003 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C004 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C005 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C006 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C008 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C009 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C013 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C014 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C015 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C016 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C017 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C018 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C019 | 1-162-852-11 | CERAMIC | 0.15uF | 10% | 16V |
| C020 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C025 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C026 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C027 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| | | 〈 CONNECTOR 〉 | | | |
| CN001 | 1-564-726-11 | PIN HEADER, ANGLE 10P | | | |
| CN002 | 1-569-335-11 | CONNECTOR, BOARD TO BOARD 9P | | | |
| CN004 | 1-569-341-11 | CONNECTOR, BOARD TO BOARD 19P | | | |
| CN005 | 1-506-468-11 | CONNECTOR 3P, MALE | | | |
| CN006 | 1-569-333-11 | CONNECTOR, BOARD TO BOARD 3P | | | |
| CN007 | 1-569-341-11 | CONNECTOR, BOARD TO BOARD 19P | | | |
| | | 〈 DIODE 〉 | | | |
| D001 | 8-719-985-00 | DIODE GL451VS1 | | | |
| D004 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | |
| D005 | 8-719-109-97 | DIODE RD6.8ES-B2 | | | |
| | | 〈 IC 〉 | | | |
| IC002 | 8-759-912-77 | IC LM324N | | | |
| IC004 | 8-759-420-83 | IC AN3814K | | | |
| IC005 | 8-759-987-16 | IC LM393P | | | |
| | | 〈 PHOTO INTERUPTER 〉 | | | |
| PH001 | 8-759-144-33 | IC PS6002 | | | |
| PH002 | 8-759-144-33 | IC PS6002 | | | |
| | | 〈 TRANSISTOR 〉 | | | |
| Q001 | 8-729-926-31 | TRANSISTOR PT483F1S | | | |
| Q002 | 8-729-926-31 | TRANSISTOR PT483F1S | | | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ( RESISTOR ) | |
| R001 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R002 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R003 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R004 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R005 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R006 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R007 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R008 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R009 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R010 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R011 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R012 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R013 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R014 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R015 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R016 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R022 | 1-249-430-11 | CARBON 12K 5% 1/4W | |
| R023 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R024 | 1-249-430-11 | CARBON 12K 5% 1/4W | |
| R025 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R026 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R028 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R029 | 1-249-395-11 | CARBON 15 5% 1/4W | |
| R030 | 1-249-395-11 | CARBON 15 5% 1/4W | |
| R031 | 1-249-395-11 | CARBON 15 5% 1/4W | |
| ⚠R032 | 1-216-347-11 | METAL OXIDE 0.68 5% 1W | F |
| | | ( SWITCH ) | |
| S001 | 1-570-953-11 | SWITCH, PUSH (1 KEY) (CASSETTE UP/DOWN) | |
| S002 | 1-570-953-11 | SWITCH, PUSH (1 KEY) (REC PRF) | |

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * | A-6721-447-A | MF-151 BOARD, COMPLETE (UB MODEL)<br>********************** | |
| * | A-6721-448-A | MF-151 BOARD, COMPLETE (CP MODEL)<br>********************** | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * | A-6721-449-A | MF-151 BOARD, COMPLETE<br>**********************<br>(AEP, EI, VP MODEL)<br>(Ref. No 3,000 Series) | |
| | 1-572-662-11 | SWITCH, ROTARY | |
| | | ( CAPACITOR ) | |
| C002 | 1-162-206-31 | CERAMIC 20PF 5% 50V | |
| C003 | 1-162-206-31 | CERAMIC 20PF 5% 50V | |
| C004 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C005 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C006 | 1-128-057-11 | ELECT 330uF 20% 6.3V | |
| C007 | 1-125-486-11 | DOUBLE LAYERS 0.22F 5.5V | |
| C008 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C009 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C010 | 1-126-096-11 | ELECT 10uF 20% 35V | |
| C011 | 1-161-327-00 | CERAMIC 0.0033uF 30% 16V | |
| C012 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C013 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C014 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C015 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C016 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C017 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| | | ( CONNECTOR ) | |
| CN001 | 1-569-342-11 | CONNECTOR, BOARD TO BOARD 19P | |
| CN002 | 1-569-342-11 | CONNECTOR, BOARD TO BOARD 19P | |
| CN003 | 1-562-631-11 | SOCKET, CONNECTOR | |
| CN004 | 1-568-671-11 | CONNECTOR, BOARD TO BOARD 11P | |
| CN005 | 1-580-850-11 | CONNECTOR (DMS) 8P | |
| | | ( DIODE ) | |
| D001 | 8-719-974-59 | DIODE 1SR139-100 | |
| D002 | 8-719-974-59 | DIODE 1SR139-100 | |
| D003 | 8-719-110-08 | DIODE RD8.2ES-B2 | |
| D004 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D005 | 8-719-109-97 | DIODE RD6.8ES-B2 | |
| D006 | 8-719-987-06 | DIODE WG713A | |
| D006 | 8-719-911-19 | DIODE 1SS119 | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# MF-151 MF-152

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ( FILTER ) | |
| FL001 | 1-519-668-31 | INDICATION TUBE, FLUORESCENT | |
| | | ( IC ) | |
| IC001 | 8-752-832-89 | IC CXP50116-270Q | |
| IC002 | 8-759-505-83 | IC S-8054ALR-Z | |
| IC003 | 8-759-941-78 | IC S-8053ALB | |
| IC004 | 8-759-501-99 | IC ST93C46AB1 | |
| IC005 | 1-466-131-21 | IC GP1U52X | |
| | | ( COIL ) | |
| L001 | 1-410-522-11 | INDUCTOR 120uH | |
| L002 | 1-410-522-11 | INDUCTOR 120uH | |
| L003 | 1-410-522-11 | INDUCTOR 120uH | |
| L004 | 1-410-522-11 | INDUCTOR 120uH | |
| L005 | 1-410-363-11 | INDUCTOR 27uH | |
| L006 | 1-410-363-11 | INDUCTOR 27uH | |
| L007 | 1-410-515-11 | INDUCTOR 33uH | |
| L008 | 1-410-515-11 | INDUCTOR 33uH | |
| L009 | 1-410-363-11 | INDUCTOR 27uH | |
| | | ( RESISTOR ) | |
| R001 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R002 | 1-247-895-00 | CARBON 470K 5% 1/4W | |
| R003 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R004 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R005 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R006 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R007 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R008 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R009 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R010 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R011 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R012 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R013 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R014 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R015 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R016 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R018 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | (UB MODEL) |
| R018 | 1-249-431-11 | CARBON 15K 5% 1/4W | (VP MODEL) |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R018 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | (CP MODEL) |
| R019 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R020 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R021 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R022 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R023 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R025 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R028 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R030 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R031 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R032 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R033 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R034 | 1-216-378-11 | METAL OXIDE 5.6 5% 2W | F |
| R050 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| | | ( SWITCH ) | |
| S001 | 1-571-977-11 | SWITCH, TACTIL (PAUSE ▮▮) | |
| S002 | 1-571-977-11 | SWITCH, TACTIL (Hi-SPEED REWIND ◀◀◀) | |
| | | ( CRYSTAL ) | |
| X001 | 1-577-101-11 | VIBRATOR, CERAMIC (4.19MHz) | |
| X002 | 1-567-098-00 | OSCILLATOR, CRYSTAL (32.768kHz) | |

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * | A-6754-408-A | MF-152 BOARD, COMPLETE (UB MODEL)<br>********************** | |
| * | A-6754-409-A | MF-152 BOARD, COMPLETE (VP MODEL)<br>********************** | |
| * | A-6754-410-A | MF-152 BOARD, COMPLETE<br>********************** | (AEP, EI, CP MODEL)<br>(Ref. No 4,000 Series) |
| | 1-570-865-11 | SWITCH, SLIDE | |
| | 1-555-110-00 | CABLE, PIN | |
| | | ( CAPACITOR ) | |
| C052 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |

( CONNECTOR )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| CN051 | 1-568-665-11 | CONNECTOR, BOARD TO BOARD 11P | | | |

( DIODE )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| D051 | 8-719-970-67 | DIODE SLR-34MC80F215 | | | |
| D052 | 8-719-970-67 | DIODE SLR-34MC80F215 | | | |
| D053 | 8-719-911-19 | DIODE 1SS133T (UB MODEL) | | | |
| D055 | 8-719-940-99 | DIODE SLV-34VC3 (UB MODEL) | | | |
| D058 | 8-719-911-19 | DIODE 1SS133T (UB MODEL) | | | |
| D059 | 8-719-911-19 | DIODE 1SS133T (UB MODEL) | | | |
| D060 | 8-719-911-19 | DIODE 1SS133T (UB MODEL) | | | |

( RESISTOR )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R051 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R052 | 1-249-404-11 | CARBON | 82 | 5% | 1/4W<br>(UB MODEL) |
| R053 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W<br>(UB MODEL) |
| R054 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R055 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R057 | 1-249-423-11 | CARBON | 3.3K | 5% | 1/4W |

( VARIABLE RESISTOR )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| RV051 | 1-230-819-11 | RES, ADJ, CARBON 2K (SHARPNESS) | | | |

( SWITCH )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| S051 | 1-571-977-11 | SWITCH, TACTIL (POWER) | | | |
| S052 | 1-571-977-11 | SWITCH, TACTIL (EJECT ▲) | | | |
| S054 | 1-570-865-11 | SWITCH, SLIDE (PAL→MESECAM) (UB MODEL) | | | |
| S055 | 1-571-977-11 | SWITCH, TACTIL (RESET) | | | |

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* A-6726-326-A PC-54 BOARD, COMPLETE

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(Ref.No 7,000 Series)

( CAPACITOR )

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C201 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V |
| C202 | 1-164-031-11 | CERAMIC | 33PF | 5% | 50V |
| C203 | 1-102-824-00 | CERAMIC | 470PF | 5% | 50V |
| C204 | 1-102-525-11 | CERAMIC | 68PF | 5% | 50V |
| C205 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V |
| C206 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C207 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C208 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C801 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C802 | 1-124-442-00 | ELECT | 330uF | 20% | 6.3V |
| C803 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C804 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C805 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C806 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C807 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C808 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C809 | 1-102-978-00 | CERAMIC | 220PF | 5% | 50V |
| C810 | 1-102-978-00 | CERAMIC | 220PF | 5% | 50V |
| C811 | 1-164-031-11 | CERAMIC | 33PF | 5% | 50V |
| C812 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C813 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C814 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C815 | 1-130-499-00 | MYLAR | 0.22uF | 5% | 50V |
| C816 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C817 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C818 | 1-161-061-11 | CERAMIC | 0.068uF | 10% | 50V |
| C820 | 1-164-070-11 | CERAMIC | 100PF | 5% | 50V |
| C821 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C823 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| C825 | 1-130-495-00 | MYLAR | 0.1uF | 5% | 50V |
| C826 | 1-164-098-11 | CERAMIC | 0.047uF | | 12V |
| C827 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C829 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C830 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C831 | 1-101-361-00 | CERAMIC | 150PF | 5% | 50V |
| C832 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C833 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C836 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C837 | 1-164-052-11 | CERAMIC | 18PF | 5% | 50V |
| C838 | 1-124-126-00 | ELECT | 47uF | 20% | 10V |
| C840 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C841 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C842 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C848 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C849 | 1-130-497-00 | MYLAR | 0.15uF | 5% | 50V |

# PC-54

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | 〈 CONNECTOR 〉 | |
| CN801 | 1-573-123-11 | CONNECTOR, BOARD TO BOARD 15P | |
| | | 〈 DIODE 〉 | |
| D801 | 8-719-911-19 | DIODE 1SS119 | |
| | | 〈 DELAY 〉 | |
| DL801 | 1-415-602-11 | DELAY LINE, GLASS | |
| | | 〈 FILTER 〉 | |
| FL801 | 1-239-915-11 | FILTER, BAND PASS | |
| FL802 | 1-236-311-11 | FILTER, BAND PASS | |
| FL803 | 1-527-849-00 | FILTER, CERAMIC | |
| | | 〈 IC 〉 | |
| IC801 | 8-759-320-78 | IC HA118016NT | |
| | | 〈 COIL 〉 | |
| L201 | 1-410-423-11 | INDUCTOR 22uH | |
| L202 | 1-408-409-00 | INDUCTOR 10uH | |
| L203 | 1-410-423-11 | INDUCTOR 22uH | |
| L801 | 1-408-421-00 | INDUCTOR 100uH | |
| L802 | 1-408-427-00 | INDUCTOR 330uH | |
| L803 | 1-408-429-00 | INDUCTOR 470uH | |
| L805 | 1-410-509-11 | INDUCTOR 10uH | |
| L806 | 1-408-408-00 | INDUCTOR 8.2uH | |
| L807 | 1-408-408-00 | INDUCTOR 8.2uH | |
| L809 | 1-407-499-00 | INDUCTOR 3.9mH | |
| | | 〈 TRANSISTOR 〉 | |
| Q201 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q202 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q203 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q204 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q801 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q802 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q804 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| Q805 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q806 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q807 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q808 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q809 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q812 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q851 | 8-729-903-02 | TRANSISTOR DTA143XS | |
| Q852 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| | | 〈 RESISTOR 〉 | |
| R201 | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R202 | 1-249-430-11 | CARBON 12K 5% 1/4W | |
| R203 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R204 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R205 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R206 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R207 | 1-247-897-11 | CARBON 560K 5% 1/4W | |
| R208 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R209 | 1-249-428-11 | CARBON 8.2K 5% 1/4W | |
| R210 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R211 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R212 | 1-249-407-11 | CARBON 150 5% 1/4W | |
| R213 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R214 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R215 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R216 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R217 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R801 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R802 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R803 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R804 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R805 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R806 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R808 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R809 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R810 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R811 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R812 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R813 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R814 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R815 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R816 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R817 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R818 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R819 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R820 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R822 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R823 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R824 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R825 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R826 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R827 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| R828 | 1-249-410-11 | CARBON 270 5% 1/4W | |
| R832 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R833 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R834 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R835 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R836 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R837 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R838 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R839 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R850 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R858 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| | | ⟨ VARIABLE RESISTOR ⟩ | |
| RV801 | 1-238-012-11 | RES, ADJ, CARBON 1K | |
| | | ⟨ CRYSTAL ⟩ | |
| X801 | 1-577-651-11 | VIBRATOR, CRYSTAL (4.43MHz) | |

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|---|---|---|---|
| * | A-6727-327-A | RP-100 BOARD, COMPLETE<br>********************** | |
| | | | (Ref.No 5,000 Series) |
| * | 3-746-014-01 | CASE (MAIN), GRP | |
| * | 3-746-015-01 | CASE (UPPER), GRP | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ⟨ CAPACITOR ⟩ | |
| C001 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C002 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C003 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C004 | 1-164-031-11 | CERAMIC 33PF 5% 50V | |
| C005 | 1-164-031-11 | CERAMIC 33PF 5% 50V | |
| C006 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C007 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C008 | 1-162-306-11 | CERAMIC 0.01uF 20% 16V | |
| C009 | 1-162-306-11 | CERAMIC 0.01uF 20% 16V | |
| C010 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C011 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C012 | 1-164-027-11 | CERAMIC 22PF 5% 50V | |
| C013 | 1-164-031-11 | CERAMIC 33PF 5% 50V | |
| C014 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C015 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C016 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C017 | 1-162-306-11 | CERAMIC 0.01uF 20% 16V | |
| C018 | 1-126-154-11 | ELECT 47uF 20% 6.3V | |
| C019 | 1-162-306-11 | CERAMIC 0.01uF 20% 16V | |
| C020 | 1-126-154-11 | ELECT 47uF 20% 6.3V | |
| C021 | 1-161-375-00 | CERAMIC 0.0022uF 20% 50V | |
| C022 | 1-161-375-00 | CERAMIC 0.0022uF 20% 50V | |
| C023 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C024 | 1-124-463-00 | ELECT 0.1uF 20% 50V | |
| C025 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C026 | 1-162-306-11 | CERAMIC 0.01uF 20% 16V | |
| C027 | 1-164-027-11 | CERAMIC 22PF 5% 50V | |
| C028 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C029 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C030 | 1-164-023-11 | CERAMIC 15PF 5% 50V | |
| C031 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C032 | 1-164-033-11 | CERAMIC 39PF 5% 50V | |
| C033 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C034 | 1-102-973-00 | CERAMIC 100PF 5% 50V | |
| C035 | 1-102-525-11 | CERAMIC 68PF 5% 50V | |
| C036 | 1-102-820-00 | CERAMIC 330PF 5% 50V | |
| C037 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C038 | 1-126-154-11 | ELECT 47uF 20% 6.3V | |
| C039 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C040 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C041 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| C042 | 1-162-839-11 | CERAMIC 0.01uF 10% 16V | |
| | | ⟨ CONNECTOR ⟩ | |
| CN001 | 1-569-709-11 | SOCKET, CONNECTOR 8P | |
| * CN002 | 1-564-030-00 | PIN, CONNECTOR 5P | |
| * CN003 | 1-564-020-71 | PIN, CONNECTOR 10P | |
| CN004 | 1-506-489-11 | CONNECTOR 10P, MALE | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ( DIODE ) | |
| D001 | 8-719-911-19 | DIODE 1SS119 | |
| D002 | 8-719-911-19 | DIODE 1SS119 | |
| D003 | 8-719-911-19 | DIODE 1SS119 | |
| | | ( IC ) | |
| IC001 | 8-759-320-52 | IC HA118019NT | |
| | | ( COIL ) | |
| L001 | 1-407-169-XX | INDUCTOR 100uH | |
| L002 | 1-407-169-XX | INDUCTOR 100uH | |
| L003 | 1-408-975-21 | INDUCTOR 27uH | |
| L004 | 1-408-973-21 | INDUCTOR 18uH | |
| L005 | 1-408-977-21 | INDUCTOR 39uH | |
| L006 | 1-408-970-21 | INDUCTOR 10uH | |
| L007 | 1-408-973-21 | INDUCTOR 18uH | |
| L008 | 1-408-985-21 | INDUCTOR 180uH | |
| L009 | 1-407-169-XX | INDUCTOR 100uH | |
| | | ( TRANSISTOR ) | |
| Q002 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q003 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q004 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q005 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q006 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q007 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| | | ( RESISTOR ) | |
| R001 | 1-249-404-00 | CARBON 82 5% 1/4W | |
| R002 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R003 | 1-249-404-00 | CARBON 82 5% 1/4W | |
| R004 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R005 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R007 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R008 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R009 | 1-247-891-00 | CARBON 330K 5% 1/4W | |
| R010 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R011 | 1-247-895-00 | CARBON 470K 5% 1/4W | |
| R012 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R013 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R014 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R016 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R017 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R018 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R019 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R020 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R021 | 1-249-416-11 | CARBON 820 5% 1/4W | |
| R022 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R023 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R024 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R025 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R026 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R027 | 1-249-416-11 | CARBON 820 5% 1/4W | |
| R028 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R029 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R030 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R031 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R032 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R033 | 1-249-429-11 | CARBON 10K 5% 1/4W | |

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| | | | |
|---|---|---|---|
| * | A-6726-325-A | YP-11 BOARD, COMPLETE<br>********************* | |
| | | (Ref. No 6,000 Series) | |
| | | ( CAPACITOR ) | |
| C701 | 1-164-092-11 | CERAMIC 0.0033uF 10% 25V | |
| C702 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C703 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C704 | 1-124-248-00 | ELECT 22uF 20% 35V | |
| C705 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C706 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C707 | 1-126-163-11 | ELECT 4.7uF 20% 50V | |
| C708 | 1-164-046-11 | CERAMIC 10PF 0.5PF 50V | |
| C709 | 1-124-443-00 | ELECT 100uF 20% 10V | |
| C710 | 1-164-098-11 | CERAMIC 0.047uF 12V | |
| C711 | 1-102-820-00 | CERAMIC 330PF 5% 50V | |
| C712 | 1-102-822-00 | CERAMIC 390PF 5% 50V | |
| C713 | 1-162-293-31 | CERAMIC 820PF 10% 50V | |
| C714 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C715 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C718 | 1-124-927-11 | ELECT 4.7uF 20% 100V | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C723 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C724 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C725 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C726 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C727 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C728 | 1-164-060-11 | CERAMIC | 39PF | 5% | 50V |
| C730 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C731 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C732 | 1-164-068-11 | CERAMIC | 82PF | 5% | 50V |
| C733 | 1-164-058-11 | CERAMIC | 33PF | 5% | 50V |
| C734 | 1-102-824-00 | CERAMIC | 470PF | 5% | 50V |
| C735 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C736 | 1-164-066-11 | CERAMIC | 68PF | 5% | 50V |
| C737 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C738 | 1-124-925-11 | ELECT | 2.2uF | 20% | 100V |
| C739 | 1-164-072-11 | CERAMIC | 120PF | 5% | 50V |
| C741 | 1-124-126-00 | ELECT | 47uF | 20% | 10V |
| C743 | 1-162-851-11 | CERAMIC | 0.1uF | 10% | 16V |
| C744 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C746 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C747 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C749 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C750 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C751 | 1-164-096-11 | CERAMIC | 0.01uF | | 50V |
| C753 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C754 | 1-164-058-11 | CERAMIC | 33PF | 5% | 50V |
| C755 | 1-164-072-11 | CERAMIC | 120PF | 5% | 50V |
| C756 | 1-102-978-00 | CERAMIC | 220PF | 5% | 50V |
| C760 | 1-164-095-11 | CERAMIC | 0.01uF | 10% | 16V |
| C763 | 1-124-927-11 | ELECT | 4.7uF | 20% | 100V |
| C768 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C770 | 1-102-978-00 | CERAMIC | 220PF | 5% | 50V |
| C771 | 1-161-379-00 | CERAMIC | 0.01uF | 20% | 25V |
| C780 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C782 | 1-164-068-11 | CERAMIC | 82PF | 5% | 50V |
| C783 | 1-102-820-00 | CERAMIC | 330PF | 5% | 50V |
| C785 | 1-164-095-11 | CERAMIC | 0.01uF | 10% | 16V |
| C790 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |
| C834 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C860 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C867 | 1-162-286-31 | CERAMIC | 220PF | 10% | 50V |
| C898 | 1-164-159-11 | CERAMIC | 0.1uF | | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C901 | 1-161-772-11 | CERAMIC | 0.1uF | 10% | 25V |
| C902 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C903 | 1-162-839-11 | CERAMIC | 0.01uF | 10% | 16V |
| | | 〈 CONNECTOR 〉 | | | |
| * CN701 | 1-565-438-11 | SOCKET, CONNECTOR (PCB) 10P | | | |
| * CN702 | 1-565-346-11 | SOCKET, CONNECTOR (PC BAORD)7P | | | |
| CN703 | 1-573-124-11 | CONNECTOR, BOARD TO BOARD 15P | | | |
| CN704 | 1-506-489-11 | CONNECTOR 10P, MALE | | | |
| | | 〈 DIODE 〉 | | | |
| D701 | 8-719-911-19 | DIODE 1SS119 | | | |
| D705 | 8-719-911-19 | DIODE 1SS119 | | | |
| | | 〈 FILTER 〉 | | | |
| FL701 | 1-236-312-11 | FILTER, BAND PASS | | | |
| | | 〈 IC 〉 | | | |
| IC701 | 8-759-420-07 | IC AN3231K | | | |
| IC702 | 8-752-321-89 | IC CXL5003P | | | |
| IC802 | 8-759-822-05 | IC LA7213 | | | |
| | | 〈 COIL 〉 | | | |
| L202 | 1-408-409-00 | INDUCTOR 10uH | | | |
| L701 | 1-408-421-00 | INDUCTOR 100uH | | | |
| L704 | 1-408-420-00 | INDUCTOR 82uH | | | |
| L705 | 1-408-422-00 | INDUCTOR 120uH | | | |
| L706 | 1-410-521-11 | INDUCTOR 100uH | | | |
| L707 | 1-408-421-00 | INDUCTOR 100uH | | | |
| L708 | 1-408-421-00 | INDUCTOR 100uH | | | |
| L709 | 1-408-421-00 | INDUCTOR 100uH | | | |
| L712 | 1-408-410-00 | INDUCTOR 12uH | | | |
| L713 | 1-408-413-00 | INDUCTOR 22uH | | | |
| L726 | 1-408-424-00 | INDUCTOR 180uH | | | |
| L892 | 1-408-409-00 | INDUCTOR 10uH | | | |
| | | 〈 TRANSISTOR 〉 | | | |
| Q702 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | | |
| Q704 | 8-729-900-89 | TRANSISTOR DTC144ES | | | |
| Q705 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | | |
| Q706 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | | |

# YP-11 POWER BLOCK

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q711 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q721 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q722 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q723 | 8-729-900-89 | TRANSISTOR DTC144ES | |
| Q810 | 8-729-900-65 | TRANSISTOR DTA144ES | |
| Q883 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| | | 〈 RESISTOR 〉 | |
| R701 | 1-247-891-00 | CARBON 330K 5% 1/4W | |
| R703 | 1-249-428-11 | CARBON 8.2K 5% 1/4W | |
| R704 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R705 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R706 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R707 | 1-247-834-11 | CARBON 1.3K 5% 1/4W | |
| R708 | 1-247-818-11 | CARBON 300 5% 1/4W | |
| R709 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R710 | 1-249-438-11 | CARBON 56K 5% 1/4W | |
| R712 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R713 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R717 | 1-249-420-11 | CARBON 1.8K 5% 1/4W | |
| R718 | 1-249-422-11 | CARBON 2.7K 5% 1/4W | |
| R719 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R720 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| R722 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R723 | 1-249-426-11 | CARBON 5.6K 5% 1/4W | |
| R724 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R725 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R726 | 1-249-416-11 | CARBON 820 5% 1/4W | |
| R727 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R728 | 1-247-897-11 | CARBON 560K 5% 1/4W | |
| R731 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R734 | 1-249-434-11 | CARBON 27K 5% 1/4W | |
| R735 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R736 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R737 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R738 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R741 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R742 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R744 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R754 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R755 | 1-259-880-11 | CARBON 2.2M 5% 1/4W | |
| R761 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R763 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R774 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R775 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R776 | 1-249-410-11 | CARBON 270 5% 1/4W | |
| R777 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R778 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R779 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R780 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R781 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R855 | 1-249-411-11 | CARBON 330 5% 1/4W | |
| R856 | 1-247-887-00 | CARBON 220K 5% 1/4W | |
| R857 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R859 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R892 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R893 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| | | 〈 VARIABLE RESISTOR 〉 | |
| RV701 | 1-238-015-11 | RES, ADJ, CARBON 4.7K | |
| RV702 | 1-238-015-11 | RES, ADJ, CARBON 4.7K | |
| RV703 | 1-238-016-11 | RES, ADJ, CARBON 10K | |
| RV704 | 1-238-017-11 | RES, ADJ, CARBON 22K | |
| RV705 | 1-238-017-11 | RES, ADJ, CARBON 22K | |
| RV707 | 1-238-012-11 | RES, ADJ, CARBON 1K | |
| RV708 | 1-238-016-11 | RES, ADJ, CARBON 10K | |
| RV710 | 1-241-119-11 | RES, ADJ, CARBON 1K | |

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⚠ 1-413-635-11 POWER BLOCK (UB MODEL)
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⚠ 1-413-636-11 POWER BLOCK (EI, VP MODEL)
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⚠ 1-413-637-11 POWER BLOCK (AEP, CP MODEL)
***********

(Ref. No 9,000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | 〈 CAPACITOR 〉 | |
| C115 | 1-130-495-00 | MYLAR 0.1uF 50V | |
| C201 | 1-124-122-11 | ELECT 100uF 50V | |
| C204 | 1-126-301-11 | ELECT 1uF 50V | |
| C206 | 1-126-101-11 | ELECT 100uF 16V | |
| C207 | 1-126-101-11 | ELECT 100uF 16V | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# POWER BLOCK

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C208 | 1-124-893-11 | ELECT 2200uF | 10V |
| C209 | 1-124-443-00 | ELECT 100uF | 10V |
| C211 | 1-124-443-00 | ELECT 100uF | 10V |
| C212 | 1-124-122-11 | ELECT 100uF | 50V |
| C213 | 1-124-471-00 | ELECT 1000uF | 6.3V |
| C218 | 1-124-443-00 | ELECT 100uF | 10V |
| | | ( CONNECTOR ) | |
| CN711 | 1-506-473-11 | CONNECTOR 8P | |
| CN712 | 1-506-474-11 | CONNECTOR 9P | |
| | | ( DIODE ) | |
| ⚠D101 | 9-900-511-01 | DIODE S1WBA60 | |
| D102 | 8-719-948-45 | DIODE ERA22-08 | |
| D103 | 8-719-948-45 | DIODE ERA22-08 | |
| D104 | 8-719-200-82 | DIODE 11ES2 | |
| D105 | 8-719-109-63 | DIODE RD3.0EB2 | |
| D106 | 8-719-911-19 | DIODE 1SS119 | |
| D201 | 9-900-534-01 | DIODE ERA18-02 | |
| D202 | 8-719-114-55 | DIODE RD9.1JSB | |
| D203 | 8-719-311-30 | DIODE RL4Z | |
| D204 | 9-998-861-01 | DIODE ERA83-004 | |
| D205 | 8-719-981-00 | DIODE ERC81-004 | |
| D207 | 9-900-534-01 | DIODE ERA18-02 | |
| D208 | 9-998-861-01 | DIODE ERA83-004 | |
| | | ( FUSE ) | |
| ⚠F101 | 1-532-203-00 | FUSE 250V 2A | |
| | | ( IC ) | |
| ⚠IC201 | 9-900-530-01 | IC AN7809F | |
| ⚠IC202 | 8-759-420-19 | IC AN1431T | |
| ⚠IC203 | 8-759-420-19 | IC AN1431T | |
| ⚠IC204 | 8-759-420-19 | IC AN1431T | |
| | | ( COIL ) | |
| L201 | 9-901-974-01 | CHOCK COIL 10uH | |
| | | ( COUPLER ) | |
| ⚠PC101 | 8-719-939-00 | COUPLER, PHOTO PC111S | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ( TRANSISTOR ) | |
| ⚠Q101 | 8-729-204-94 | TRANSISTOR 2SC3559 | |
| ⚠Q102 | 8-729-142-46 | TRANSISTOR 2SC2001-L | |
| ⚠Q201 | 9-901-973-01 | TRANSISTOR 2SC4545 | |
| ⚠Q202 | 9-901-973-01 | TRANSISTOR 2SC4545 | |
| ⚠Q203 | 8-729-993-42 | TRANSISTOR 2SA934-Q | |
| ⚠Q204 | 8-729-201-53 | TRANSISTOR 2SA1015-GR | |
| Q205 | 8-729-900-80 | TRANSISTOR DTC114ES | |
| | | ( RESISTOR ) | |
| ⚠R101 | 1-202-719-00 | SOLID 1M 5% 1/2W | |
| R103 | 1-247-883-00 | CARBON 150K 5% 1/4W | |
| R104 | 1-247-883-00 | CARBON 150K 5% 1/4W | |
| R105 | 1-247-883-00 | CARBON 150K 5% 1/4W | |
| R106 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R107 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| ⚠R109 | 1-215-928-11 | METAL 68K 5% 3W | |
| R111 | 1-247-828-11 | CARBON 750 5% 1/4W | |
| R112 | 1-249-397-11 | CARBON 22 5% 1/4W | |
| R201 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R202 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R203 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R204 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R206 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R207 | 1-247-834-11 | CARBON 1.3K 5% 1/4W | |
| R210 | 1-215-425-00 | METAL 1.5K 5% 1/4W | |
| R211 | 1-249-414-11 | CARBON 560 5% 1/4W | |
| R212 | 1-215-425-00 | METAL 1.5K 5% 1/4W | |
| R213 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R214 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R215 | 1-215-425-00 | METAL 1.5K 5% 1/4W | |
| R216 | 1-249-409-11 | CARBON 220 5% 1/4W | |
| R217 | 1-215-425-00 | METAL 1.5K 5% 1/4W | |
| ⚠R218 | 1-212-934-00 | FUSE 1 5% 1/2W | |
| R219 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R220 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R221 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R222 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R223 | 1-249-417-11 | CARBON 1K 5% 1/4W | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# POWER BLOCK

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ( VARIABLE RESISTOR ) | |
| RV201 | 9-901-975-01 | RES, ADJ, CARBON 1KΩ | |
| | | ( THYRISTOR ) | |
| ⚠SCR201 | 9-901-972-01 | THYRISTOR 2P4M | |
| | | ( TRANCE ) | |
| ⚠T101 | 9-901-971-01 | TRANCE, CONVERTOR | |
| ************************************************************ | | | |
| | | MISCELLANEOUS<br>************* | |
| 11 | 1-466-497-71 | SWITCH BLOCK, CONTROL (AEP/UB/EI MODEL) | |
| 11 | 1-466-497-81 | SWITCH BLOCK, CONTROL (VP MODEL) | |
| 11 | 1-466-497-91 | SWITCH BLOCK, CONTROL (CP MODEL) | |
| 16 | 1-572-662-11 | SWITCH, ROTARY | |
| 24 | 1-465-724-41 | REMOTE COMMANDER (RMT-V118A) (CP MODEL) | |
| 32 | 1-465-739-21 | REMOTE COMMANDER (RMT-V117) (EXCEPT CP MODEL) | |
| ⚠54 | 1-413-635-11 | POWER BLOCK (UB MODEL) | |
| ⚠54 | 1-413-636-11 | POWER BLOCK (VP/EI MODEL) | |
| ⚠54 | 1-413-637-11 | POWER BLOCK (AEP/CP MODEL) | |
| 260 | 1-543-647-11 | HEAD, FE | |
| 264 | 1-550-655-11 | UPPER DRUM ASSY (DZR-32-R) | |
| * 328 | 1-633-460-11 | PC BOAD, CA-41 | |
| D001 | 8-719-985-00 | DIODE GL451VS1 (LED) | |
| M901 | 1-550-656-11 | LOWER DRUM ASSY (DZL-32A-R) | |
| M902 | 8-835-394-11 | MOTOR, DC U-26F | |
| PC001 | 1-558-924-21 | CABLE, PIN | |
| Q001 | 8-729-926-31 | PHOTO TRANSISTOR PT483F1S | |
| ⚠RF201 | 1-466-328-11 | MODULATOR, RF (RFU-2017) | |
| ⚠RF201 | 1-466-347-11 | MODULATOR, RF (RFU-2017) (UB/EI MODEL) | |
| ⚠TI701 | 1-465-744-11 | TUNER, VIF (BTF-2U601) (UB MODEL) | |
| ⚠TI701 | 1-465-745-11 | TUNER, VIF (BTF-2U401) (VP MODEL) | |
| ⚠TI701 | 1-465-746-11 | TUNER, VIF (BTF-2U402) (AEP/CP MODEL) | |
| ⚠TI701 | 1-465-747-11 | TUNER, VIF (BTF-2U403) (EI MODEL) | |
| S001 | 1-692-062-21 | SWITCH, ROTARY | |
| ************************************************************ | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ACCESSORIES & PACKING MATERIALS<br>****************************** | |
| | 1-551-513-00 | CABLE, COAXIAL ASS'Y | |
| | ⚠1-575-131-11 | CORD, POWER (AEP/CP/EI MODEL) | |
| | ⚠1-575-132-11 | CORD, POWER (VP MODEL) | |
| | ⚠1-590-865-11 | CORD, POWER (UB MODEL) | |
| | 3-754-065-11 | MANUAL, INSTRUCTION (UB/EI MODEL) (ENGLISH) | |
| | 3-754-065-41 | MANUAL, INSTRUCTION (AEP MODEL) (SWEDISH/DUTCH/FRENCH) | |
| | 3-754-065-51 | MANUAL, INSTRUCTION (VP MODEL) (GERMAN/FRENCH/ITALIAN) | |
| | 3-754-065-61 | MANUAL, INSTRUCTION (CP MODEL) (SPANISH/PORTUGUESE) | |
| | 3-754-065-71 | MANUAL, INSTRUCTION (AEP MODEL) (ITALIAN) | |
| | 3-942-852-01 | CUSHION (UPPER) | |
| | 3-942-853-01 | CUSHION (LOWER) | |
| * | 3-945-163-01 | INDIVIDUAL CARTON | |
| ************************************************************ | | | |
| | | HARDWARE LIST<br>************* | |
| #1 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 IT-3 | |
| #2 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 IT-3 | |
| #3 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 | |
| #4 | 7-627-552-08 | SCREW, PRECISION +P 1.7X2.5 | |
| #5 | 7-682-645-01 | SCREW +PS 3X4 | |
| #6 | 7-621-732-08 | SET-SCT, HEX. 2X3 FLAT POINT | |
| #7 | 7-682-547-04 | SCREW +P 3X6 | |
| #8 | 7-682-548-04 | SCREW +P 3X8 | |
| #9 | 7-628-254-00 | SCREW +PS 2.6X5 | |
| #10 | 7-624-102-04 | STOP RING 1.5, TYPE-E | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# SECTION 7

# ELECTRICAL ADJUSTMENTS

**During the adjustment, see the Parts Arrangement Diagram relevant to the adjustment on page 146.**

## 7-1. PRE-ADJUSTMENT PREPARATIONS

Necessary items and indications for total adjustment of electric circuit of this machine will be described in this chapter.

### 7-1-1. Instruments to be Used

1) Color TV
2) Oscilloscope 1 or 2 phenomena, band more than 30 MHz, delay mode, as provided.
3) Frequency counter (min, 8 digits)
4) PAL pattern generator
5) Digital voltmeter
6) Audio level meter
7) Audio generator
8) Attenuator
9) Distortion factor meter
10) Alignment tape
    Part code: H7099052H (MH-2)
11) Extention cable for YP-11 board.
    10P 2 mm pitch Part code:
    7P 2 mm pitch Part code:

### 7-1-2. Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown in the following diagram.

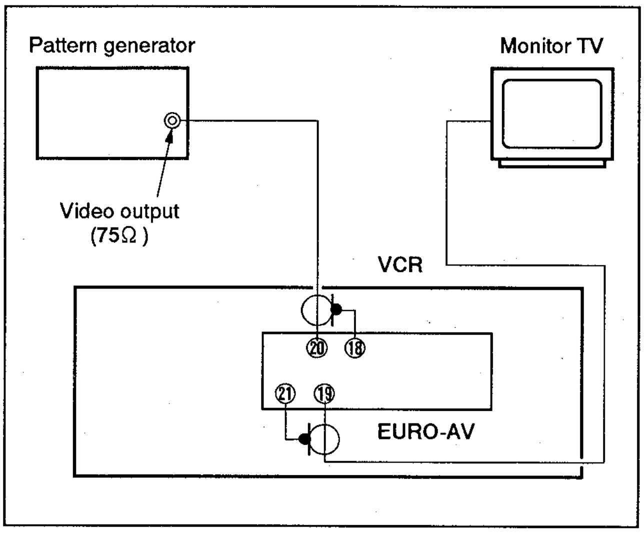

Pattern generator
Monitor TV
Video output
(75Ω)
VCR
⑳
⑱
㉑
⑲
EURO-AV

Fig. 7-1.

### 7-1-3. Setup for Adjustment

In this adjustment, PAL pattern generator is connected with Pin ⑳ of EURO-AV connector. When check to tuner, connected AERIAL terminal. Check that the amplitudes of video signal SYNC signal, of picture portions, and of burst signals are flat at approximately 0.3, 0.7 and 0.3V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30:0.66. Fig. 7-2. shows video signals (color bars) used in adjusting the video section.

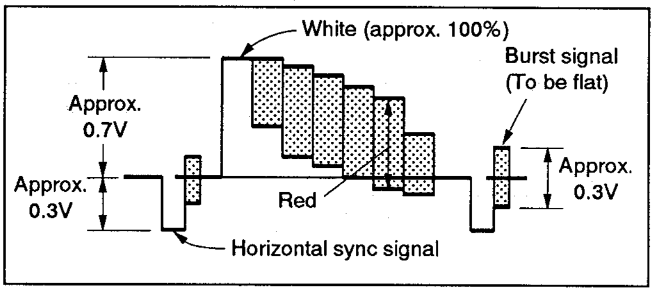

White (approx. 100%)
Burst signal
(To be flat)
Approx.
0.7V
Approx.
0.3V
Red
Approx.
0.3V
Horizontal sync signal

Fig. 7-2.

### 7-1-4. Alignment Tape (MH-2)

| | Time | Video signal | Audio signal |
|---|---|---|---|
| 1 | 10 min | Stair-step | 6 kHz |
| 2 | 5 min | ——— | 3 kHz |
| 3 | 10 min | Color bar | 1 kHz |
| 4 | 3 min | RF sweep | ——— |

Table 7-1.

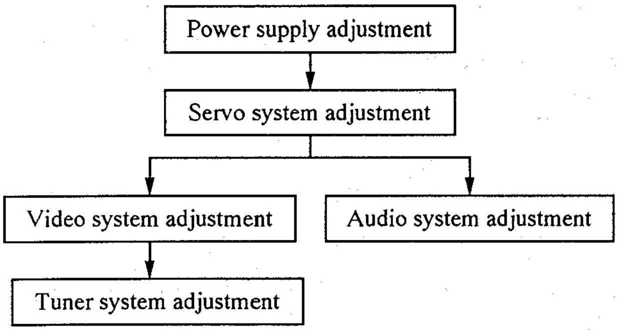
### 7-1-5. Specified I/O Level and Impedance

**Input/output terminal**

| | |
|---|---|
| Video inputs | EURO-AV: 21-pin (Pin ⑳ ) 1 Vp-p, 75Ω , unbalanced, sync negative |
| Audio inputs | EURO-AV: 21-pin (Pin ② and ⑥ )<br>More than 10 kΩ , –7.5 dBs |
| Video outputs | EURO-AV: 21-pin (Pin ⑲ ) 1 Vp-p, 75Ω , unbalanced sync negative |
| Audio outputs | EURO-AV: 21-pin (Pins ① and ③)<br>Output impedance: less than 1 kΩ<br>–7.5 dBs with 10 kΩ load |

### 7-1-6. Adjusting Sequence

Make the electrical adjustment in the following sequence.


Power supply adjustment
Servo system adjustment
Video system adjustment
Audio system adjustment
Tuner system adjustment

## 7-2. POWER SUPPLY ADJUSTMENT

### 7-2-1. UNSW 12V Adjustment (Power Block)

| | |
|---|---|
| Mode | E-E |
| Measurement Point | Pin ⑥ of CN712 |
| Measuring Instrument | Digital voltmeter |
| Adjusting Element | RV201 |
| Specified Value | 12.0 ± 0.1 Vdc |

Adjusting method:

1) With RV201, adjust the voltage to 12.0 ± 0.1 Vdc.

### 7-2-2. Power Supply Check (Power Block)

| | |
|---|---|
| Mode | E-E |
| Measuring instrument | Digital voltmeter |
| UNSW 5.8V check | |
| Measurement point | Pin ④ of CN711 |
| Specified value | 5.8 ± 0.25 Vdc |
| DC –30V check | |
| Measurement point | Pin ⑦ of CN712 |
| Specified value | –27.0 ± 2.5 Vdc |
| DC +35V check | |
| Measurement point | Pin ③ of CN711 |
| Specified value | 37.0 ± 3.0 Vdc |
| SW 5V check | |
| Measurement point | Pin ⑥ of CN711 |
| Specified value | 5.0 ± 0.2 Vdc |
| SW 9V check | |
| Measurement point | Pin ⑦ of CN711 |
| Specified value | 9.0 ± 0.3 Vdc |
| MTR 12V check | |
| Measurement point | Pin ③ of CN712 |
| Specified value | 12.3 ± 0.3 Vdc |
| DC 2.5V check | |
| Measurement point | + : Pin ⑧ of CN712<br>– : Pin ⑨ of CN712 |
| Specified value | 2.4 ± 0.2V |

Checking method:

1) Confirm that each voltage meets its specified value.

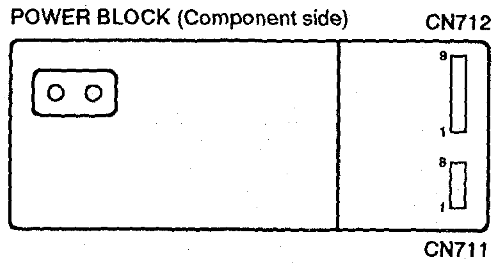

POWER BLOCK (Component side)
CN712
9
1
8
1
CN711

Fig. 7-3.

## 7-3. SERVO SYSTEM ADJUSTMENT

### 7-3-1. Switching Position Adjustment (MA-125 Board)

| | |
|---|---|
| Mode | PB |
| Signal | Alignment tape: SP stair-step section |
| Measurement Point | CH1: Pin ⑲ of CN201 (EURO-AV)<br>CH2: Pin ⑦ of CN903 (RF SWP) |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV501 |
| Specified Value | 6.5 ± 0.5H (410 ± 30 μsec) |

Adjusting method:

1) Set to PB mode and press both buttons of tracking control to set it to the center.
2) With RV501, adjust the switching position to 6.5 ± 0.5H (410 ± 30 μsec).

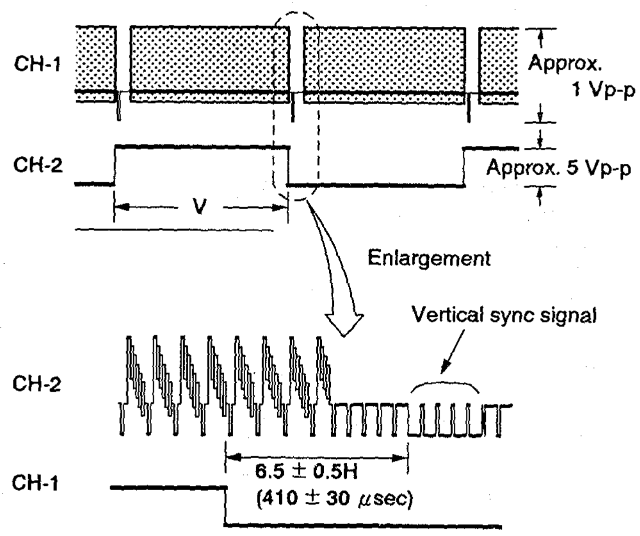

CH-1
Approx. 1 Vp-p
CH-2
Approx. 5 Vp-p
V
Enlargement
Vertical sync signal
CH-2
CH-1
6.5 ± 0.5H
(410 ± 30 μsec)

Fig. 7-4.

## 7-4. VIDEO SYSTEM ADJUSTMENTS

When adjusting YP-11 and PC-54 boards, use the extention cable.

Adjust the video system in the following sequence as a rule. The color video signal supplied from the pattern generator is used as a video input signal for video system adjustment in the recording mode.
Make sure that sync and color burst signals meet requirements specified at setup of adjustment shown in Fig. 7-2.

**[Adjusting sequence]**

7-4-1. Playback Y Signal Level Adjustment
7-4-2. Y Signal NR Level Adjustment
7-4-3. Sync AGC Adjustment
7-4-4. Sync Tip Carrier Set and Deviation Adjustment
7-4-5. White Clip, Dark Clip Adjustment
7-4-6. Recording Y Signal Level Adjustment
7-4-7. Recording Chroma Level Adjustment
7-4-8. Character generator AFC adjustment

### 7-4-1. Playback Y Signal Level Adjustment (YP-11 Board)

| | |
|---|---|
| Mode | PB |
| Signal | Alignment tape: SP color bar section |
| Measurement Point | EURO-AV connector<br>(Pin ⑲ of CN201) |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV708 |
| Specified Value | 1.00 ± 0.05 Vp-p |

**Note:** 1) Make this adjustment with the EDIT ON/OFF button set to off.
2) Pin ⑲ of CN201 must be terminated at 75Ω ± 1%.

Adjusting method:
1) With RV708, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

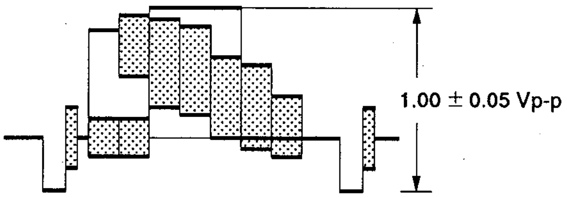


Fig. 7-5.

### 7-4-2. Y Signal NR Level Adjustment (YP-11 Board)

| | |
|---|---|
| Mode | PB |
| Signal | Alignment tape: SP color bar section |
| Measurement Point | Pin ⑩ of IC701 |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV707 |
| Specified Value | Less than 150 mVp-p |

Adjusting method:
1) Adjust to eliminate level differences for each H step with RV707.

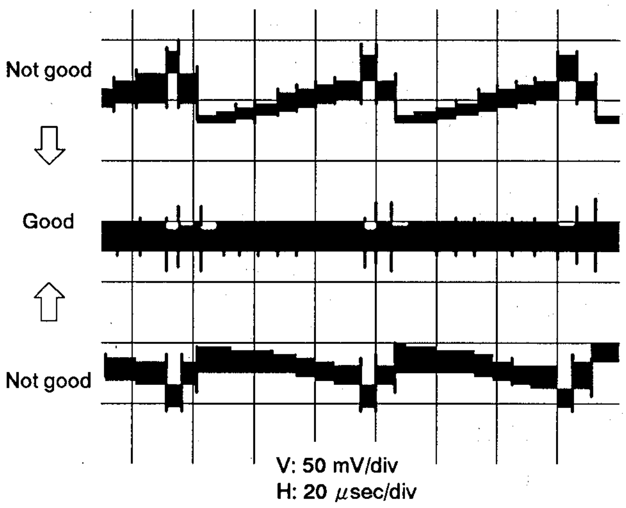


Fig. 7-6.

### 7-4-3. Sync AGC Adjustment (YP-11 Board)

| | |
|---|---|
| Mode | E-E |
| Signal | Color bar |
| Measurement Point | EURO-AV connector<br>(Pin ⑲ of CN201) |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV701 |
| Specified Value | 1.00 ± 0.05 Vp-p |

**Note:** Pin ⑲ of CN201 must be terminates at 75Ω .

Adjusting method:
1) With RV701, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

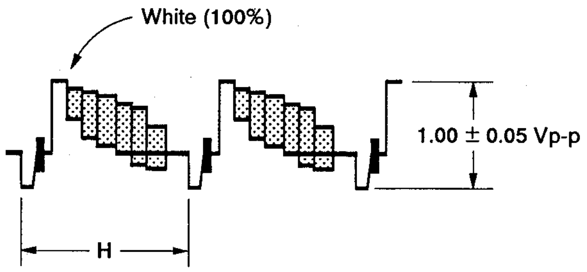


Fig. 7-7. SYNC AGC adjustment

### 7-4-4. Sync Tip Carrier Set and Deviation Adjustment (YP-11 Board)

Before starting the adjustment, be sure to check that recording Y signal level adjustment has been completed.

| Sync tip carrier set | |
|---|---|
| Mode | E-E |
| Signal | No signal (Note 2) |
| Measurement Point | Pin ㉔ of IC701 |
| Measuring Instrument | Frequency counter |
| Adjusting Element | RV703 |
| Specified Value | 3.80 ± 0.05 MHz |
| **Deviation adjustment** | |
| Mode | REC and PB |
| Signal | Color bar |
| Measurement Point | EURO-AV connector<br>(Pin ⑲ of CN201) |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV702 |
| Specified Value | 1.00 ± 0.05 Vp-p |

**Note:** Pin ⑲ of CN201 must be terminated at 75Ω .

Adjusting method:

1) Make a no signal state and select the E-E made.
2) Connect the frequency counter to the Pin ㉔ of IC701 and adjust to 3.80 ± 0.05 MHz with RV703.
3) Input the color bar signal to make recording.
4) Playback the recorded tape portion and check that the playback Y signal level is 1.00 ± 0.05 Vp-p.

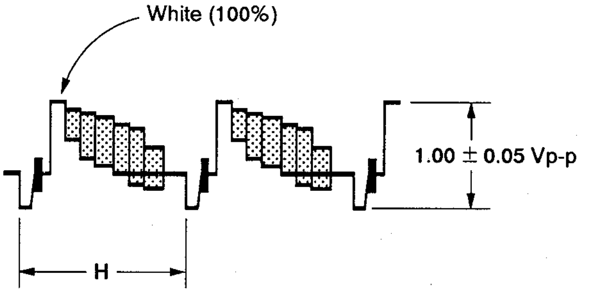


Fig. 7-8. Deviation adjustment

5) When the specified value is not met, input the color bar signal to select the E-E mode. Adjust RV702 to correct a playback Y signal level error, and then, repeat the steps 1) through 4) above.

### 7-4-5. White Clip and Dark Clip Adjustments (YP-11 Board)

| Mode | E-E |
|---|---|
| Signal | Color bar |
| Measurement Point | Pin ⑳ of IC701 |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | White clip: RV705<br>Dark clip: RV704 |
| Specified Value | White clip: $185^{+5}_{-10}$ %<br>Dark clip: $45^{+5}_{-10}$ % |

Adjusting method:

1) With RV705, adjust the white clip level to $185^{+5}_{-10}$% of the white level (100%).
2) With RV704, adjust the dark clip level to $45^{+5}_{-10}$% of the white level (100%).

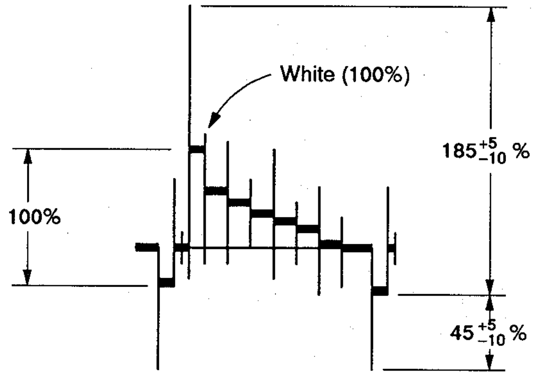


Fig. 7-9.

### 7-4-6. Recording Y Signal Level Adjustment (YP-11 Board/RP-100 Board)

| Mode | REC |
|---|---|
| Signal | No signal |
| Measurement Point | Pin ② of CN002 (RP-100 board) |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV710 (YP-11 board) |
| Specified Value | 2.2 ± 0.1 Vp-p |

Adjusting method:

1) With RV710, adjust the Y REC RF signal level to 2.2 ± 0.1 Vp-p.

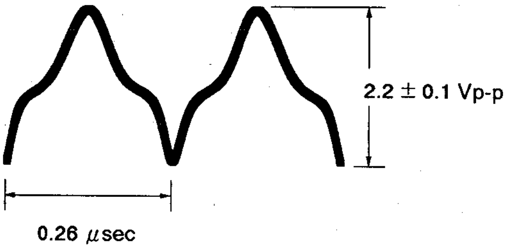


Fig. 7-10.

### 7-4-7. Recording Chroma Level Adjustment (PC-54 Board)

| | |
|---|---|
| Mode | E-E |
| Signal | Color bar |
| Measurement Point | Pin ① of CN801 |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV801 |
| Specified Value | 165 ± 10 mVp-p |

Adjusting method:

1) Adjust RV801 so that the red chroma signal level became 165 ± 10 mVp-p.

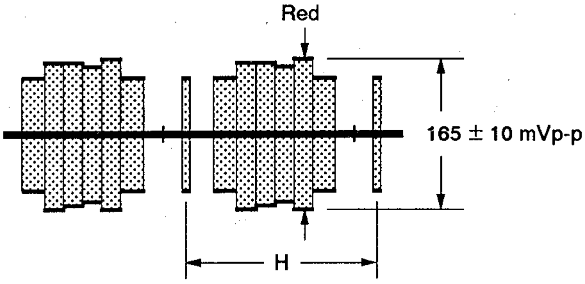


Fig. 7-11.

### 7-4-8. Character Generator AFC Adjustment (CV-26 Board)

| | |
|---|---|
| Mode | E-E |
| Signal | No signal |
| Measurement Point | Pin ⑧ of IC490 |
| Measuring Instrument | Oscilloscope |
| Adjusting Element | RV491 |
| Specified Value | 15625 ± 50 Hz |

Connection:

1) Short-circuit C492 with a jumper wire.

Adjusting method:

1) Adjust RV491 so that the oscillation frequency is 15625 ± 50 Hz.

### 7-4-9. Character Position Adjustment (CV-26 Board)

| | |
|---|---|
| Mode | PB |
| Signal | Alignment tape: color bar section |
| Measurement Point | Confirmed on monitor TV |
| Measuring Instrument | |
| Adjusting Element | CV401 |
| Specified Value | A=B |

Adjusting method:

1) Press the TRACKING AUTO/MANUAL button so that the tracking meter appears on the monitor TV screen.
2) Adjust CV401 so that the tracking meter is the center of the screen.

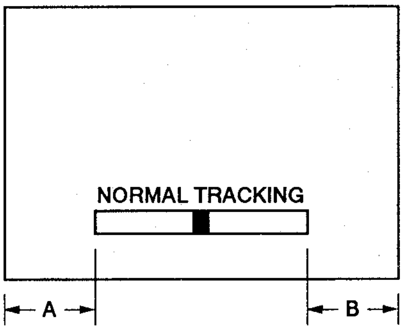


Fig. 7-12.

## 7-5. AUDIO SYSTEM ADJUSTMENT

- Use a normal VHS cassette for an adjustment tape.
- Make adjustment with the switches set to the following positions.
  INPUT SELECT……LINE

**[Connection]**

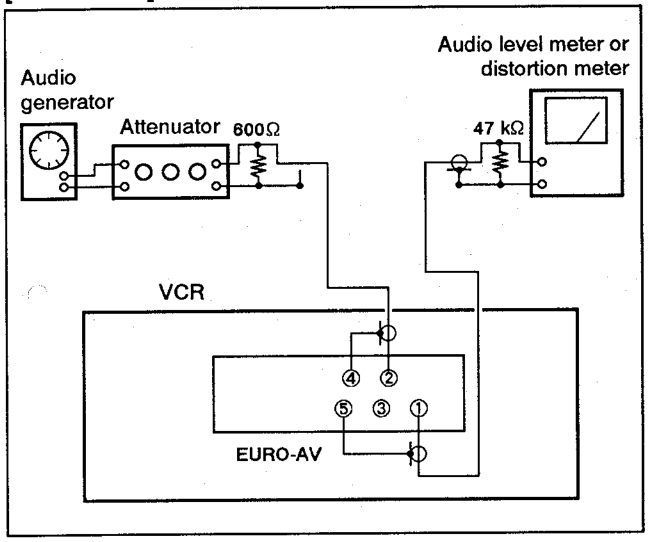


Fig. 7-13.

**[Adjusting sequence]**

1. ACE head adjustment……See Mechanism Block Adjustment
2. E-E output level check
3. Recording bias adjustment
4. Overall level characteristic and distortion factor check
5. Overall S/N check

### 1. ACE head adjustment

See "Mechanism Block Adjustment".

### 2. E-E output level check

| Mode | E-E |
|---|---|
| Signal | 400 Hz, –7.5 dBs |
| Measurement Point | EURO-AV connector<br>(Pin ① of CN201) |
| Adjusting Element | Audio level meter |
| Specified Value | –7.5 ± 2 dBs |

Confirming method:

1) Input a signal of 400 Hz, –7.5 dBs to the audio input terminal of EURO-AV connector (Pin ② of CN201).
2) Confirm that the audio output level is –7.5 ± 2 dBs.

### 3. Recording bias adjustment (MA-125 board)

| Mode | REC and PB |
|---|---|
| Signal | 400 Hz, –27.5 dBs<br>7 kHz, –27.5 dBs |
| Measurement Point | EURO-AV connector<br>(Pin ① of CN201) |
| Measuring Instrument | Audio level meter |
| Adjusting Element | RV301 |
| Specified Value | 0 ± 1 dB |

Adjusting method:

1) Supply a signal of 400 Hz, –27.5 dBs to the audio input terminal of EURO-AV connector (Pin ② of CN201).
2) Connect the audio level meter to the audio output terminal of EURO-AV connector (Pin ① of CN201).
3) Adjust the attenuator so that the audio level meter will indicate –27.5 dBs.
4) Make recording.
5) Set an audio line input signal to 7 kHz and make recording.
6) Playback a recorded portion, and measure output levels at 400 Hz and 7 kHz.
7) Confirm that the 7 kHz playback output levels within a range of the 400 Hz playback output level 0 ± 1 dB. When beyond this range, adjust RV301 and repeat the steps 1) through 7) above.

### 4. Overall level characteristic and distortion factor check

| Mode | REC and PB |
|---|---|
| Signal | 400 Hz, –7.5 dBs |
| Measurement Point | EURO-AV connector<br>(Pin ① of CN201) |
| Measuring Instrument | Audio level meter<br>and distortion factor gauge |
| Specified Value | Playback level: –7.5 ± 2 dBs<br>Distortion factor: 4% or less |

Confirming method:

1) Supply an audio signal of 400 Hz, –7.5 dBs to the audio input terminal of EURO-AV connector (Pin ② of CN201).
2) Make recording.
3) Playback a recorded portion.
4) Confirm that a playback level is –7.5 ± 2 dBs.
5) Confirm that a distortion factor is within 4%.

### 5. Overall S/N check

| | |
|---|---|
| Mode | REC and PB |
| Signal | 400 Hz, –7.5 dBs, and no signal |
| Measurement Point | EURO-AV connector<br>(Pin ① of CN201) |
| Measuring Instrument | Audio level meter |
| Specified Value | 38 dB or more |

Confirming method:
1) Supply a signal of 400 Hz, –7.5 dBs to the audio input terminal of EURO-AV connector (Pin ② of CN201).
2) Make recording.
3) With the REC mode held, make the no signal state. (Connect Pin ② of CN201 and GND with a jumper wire.)
4) Playback a recorded portion, and confirm that there is a level difference of 38 dB or more between 400 Hz portion and no signal portion (immediately after a 400 Hz signal).

## 7-6. TUNER SYSTEM ADJUSTMENTS

### 7-6-1. RF AGC Adjustment (IF701 Unit/MA-125 Board)

| | |
|---|---|
| Signal | Broadcast TV signal |
| Adjusting Element | VR of IF701 unit (Fig. 7-14.) |

Connection:
1) Remove the CV-26 board.
2) Connect Pins ② and ④ of CN401 on the MA-125 board with jumper wire.

Adjusting method:
1) Adjust the monitor TV to a maximum contrast.
2) Turn the VR to make snow noise visible.
3) Turn the VR in an opposite direction and set it to the point where the snow noise disappears.
4) Receive each channel and confirm that there are no beat picture corruption snow noise due to cross modulation.

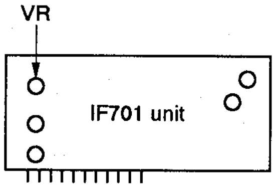
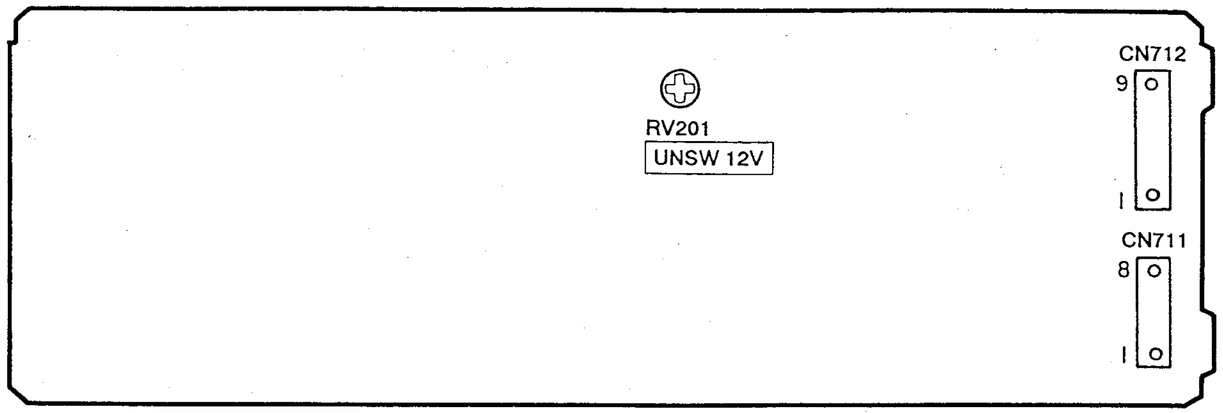


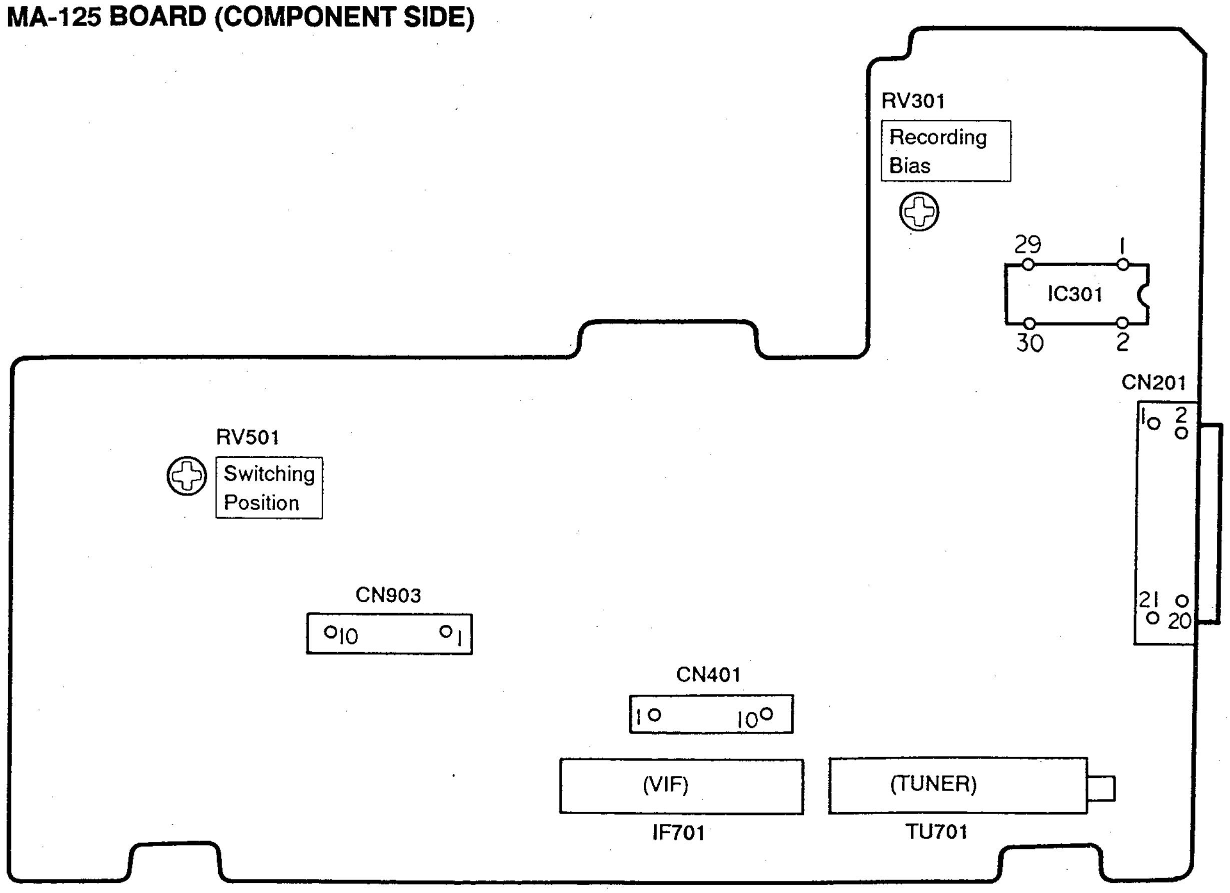
Fig. 7-14.

## 7-7. ARRANGEMENT DIAGRAMS FOR ADJUSTMENT PARTS

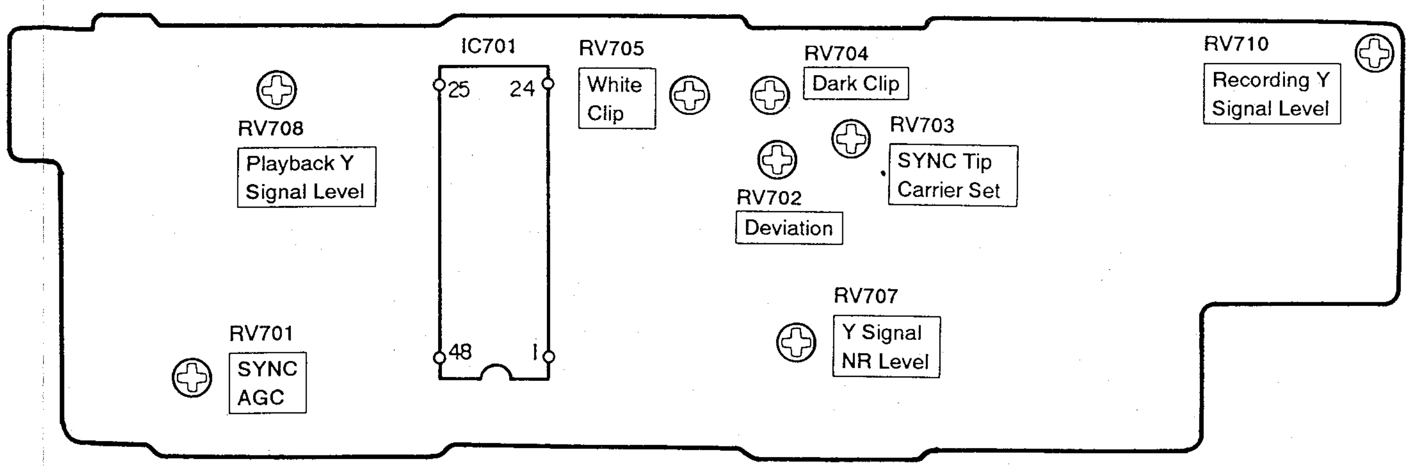
### POWER SUPPLY BOARD (SWITCHING BLOCK) (COMPONENT SIDE)


RV201
UNSW 12V
CN712
9
1
CN711
8
1

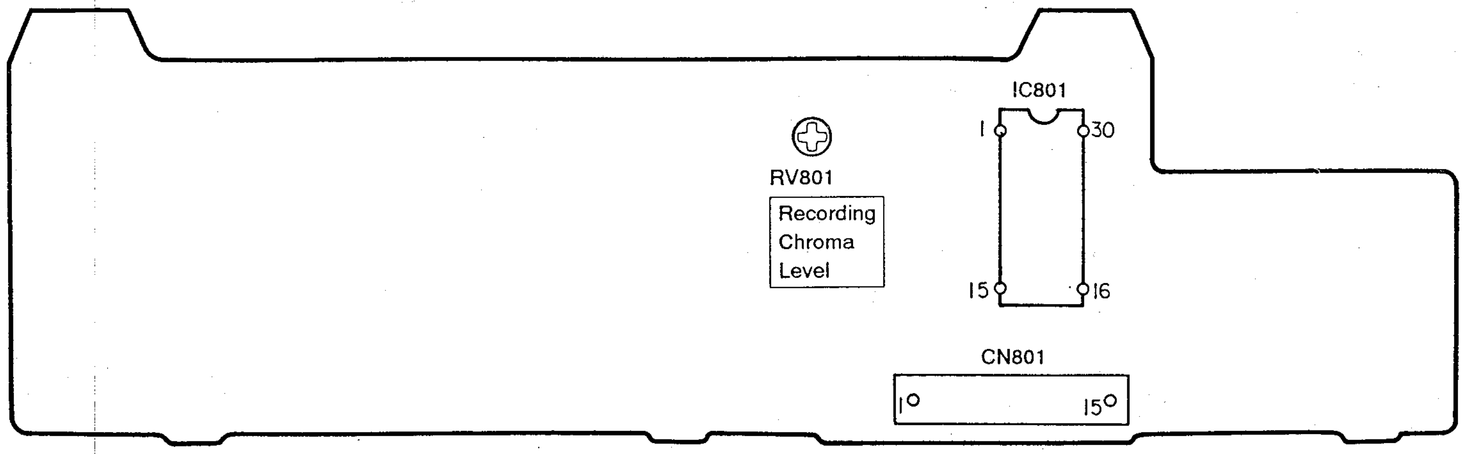
### MA-125 BOARD (COMPONENT SIDE)


RV301
Recording Bias
29
1
IC301
30
2
CN201
1
2
21
20
RV501
Switching Position
CN903
10
1
CN401
1
10
(VIF)
IF701
(TUNER)
TU701

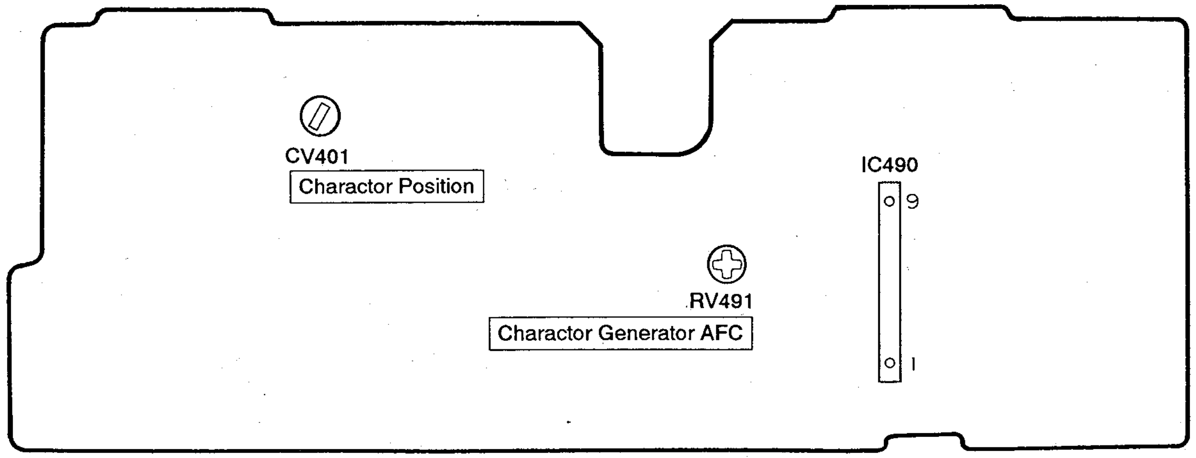
### YP-11 BOARD (COMPONENT SIDE)


IC701
25
24
48
1
RV705
White Clip
RV704
Dark Clip
RV710
Recording Y Signal Level
RV708
Playback Y Signal Level
RV703
SYNC Tip Carrier Set
RV702
Deviation
RV707
Y Signal NR Level
RV701
SYNC AGC

### PC-54 BOARD (COMPONENT SIDE)


IC801
1
30
15
16
RV801
Recording Chroma Level
CN801
1
15

### CV-26 BOARD (COMPONENT SIDE)


CV401
Charactor Position
IC490
9
1
RV491
Charactor Generator AFC